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THE IMPACT OF STOV ON UNIT TIME UTILIZATION

Richard J. Orend and Marsha J. Wallace
Human Resources Research Organization

ARI FIELD UNIT IN USAREUR



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of assigned time utilization in units, and (2) descriptions of individual time utilization, as reported by SMs using Time Diaries. A total of 378 diaries were completed in 2AD(Fwd); 331 were completed in control units. Subjects were randomly assigned to days of the week on which to complete the diaries, with unit data provided for each survey day by unit First Sergeants.

The results show that:

(1) It is only in the area of building and grounds maintenance that STOV-supported units (2AD [Fwd]) are required to assume fewer functions; the requirements for guard support are comparable in both STOV-supported and control units.

(2) The impact of STOV support on the proportion of time devoted to Special Details, as reported by units, is not significant.

(3) The impact of STOV support on the proportion of time devoted to work/job related activities, as reported by individuals (and further collapsed into half-day blocks), is insignificant.



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THE IMPACT OF STOV ON UNIT TIME UTILIZATION

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FOREWORD

This task was completed under the A792.02.001 work unit, Operational Readiness and Adaptation in USAREUR. It is part of a more general effort to identify factors which relate to personnel readiness in a USAREUR context. Other projects currently being conducted in this area include one designed to determine the relation between individual adaptation orientations and performance, and another examining the impact of tour length and term of service on attrition. This particular task was designed to assist in the evaluation of the impact of providing a particular type of garrison facilities support services. It was undertaken as a specific response to the initial implementation of this support approach in USAREUR.

The authors gratefully acknowledge those individuals who assisted in the research reported herein. Brigadier General James E. Armstrong offered the cooperation of the Second Armor Division (Forward) and contributed his insight on the functioning of the Standort Verwaltung (STOV) support system. Brigadier General Thurman E. Anderson continued that support when he received command of the Division. The study was coordinated under the supervision of Captain David Douglas and Captain Scott Miller. Dr. Trueman Tremble, of the U.S. Army Research Institute for the Behavioral and Social Sciences, contributed to the conceptualization of the study and its subsequent analysis. Captain Raul Torres assisted in the compilation of the data. Dr. Tremble and Ms. Anne Bryant, ARI, conducted data collection in the control units.

THE IMPACT OF STOV ON UNIT TIME UTILIZATION

BRIEF

Requirement:

The objectives of this research were to determine if the implementation of facilities support services through the Standort Verwaltung (STOV) would increase time available for combat-oriented training activities and, if so, whether that time is somehow channeled into mission oriented training activities. The STOV system was implemented in the Second Armor Division (Forward) at Garlstedt, West Germany, and this evaluation was conducted approximately 18 months after the system became operational. This evaluation provides one of several perspectives on the impact of the STOV approach.

Procedure:

Two types of analyses were performed: (1) a systematic evaluation of the potential impact of STOV on the availability of individual time, i.e., are STOV activities likely to reduce the amount of individual and unit effort needed to provide facilities (garrison) support? and (2) an empirical examination of the assigned and actual use of time. The latter analysis was conducted by: (a) obtaining detailed day-to-day data on the distribution of time within company-sized units; and (b) examining the individual use of time by individuals within those units. Unit data were provided by Company First Sergeants. Individual data were provided through a survey of successive random samples of unit members using an instrument known as a time diary. Data were collected from the 2nd AD, Forward units and, for comparison, from three similar battalions in other parts of Germany. The three types of outcomes from these evaluation procedures were: (1) whether the STOV system has the potential for saving time which could be used for training; (2) how units allocated SM's time; and (3) how individual SM's actually use their time.

Findings:

1. While STOV shows a potential for saving time in several areas, it is only in the area of building and grounds maintenance that STOV-supported units are required to assume fewer functions. The time requirements for guard support are comparable in both STOV-supported and control units.

2. The impact of STOV support on the proportion of time devoted to Special Details, as reported by units, is not significant. Thus, the kinds of activities which might reasonably be considered to fall within the perspective of STOV support services are not reduced. This does not mean that STOV does not do

such services, e.g., grass mowing, but that they are either replaced with similar functions and/or they do not account for a significant amount of time in units with other types of facilities support systems.

3. The impact of STOV support on the proportion of time devoted to work/job-related activities, as reported by individuals (and further collapsed into half-day blocks) is insignificant. In other words, STOV supported units spent no more time doing their jobs or receiving combat-oriented training than the control units.

Utilization of Findings:

That part of the initial justification for STOV support which addressed time problem alleviation was not supported by this research. It appears that management of time in units and other external factors impact training time more than the provision of support services. Such real time as may be saved is lost in the press of other demands on the individuals' time. Along with answers to the primary questions of the study, this research has provided two outcomes which may be of equal or even greater value to our understanding of how the Army works and how to measure those processes. First, the study showed a substantial discrepancy between what soldiers actually do and what unit leaders think they are doing. While this is not a new idea, it has certainly not been more graphically demonstrated than in this study. Second, the methodology used in this study, a combination of individual and unit activity reports, appears to have great potential for the study of management, work and training activities, social activities, and other areas where the focus is on an empirical examination of what individuals do in the Army.

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ACRONYMS
(In Order of Use)

STOV - Standort Verwaltung
OJT - On-Job Training
CQ - Charge of Quarters
SDNCO - Staff Duty NCO
TDY - Temporary Duty
JAG - Judge Advocate General
AWOL - Absent Without Leave
CIPCO - Unit Orientation Program
NJP - Non-Judicial Punishment
BSEP - Basic Skills Education Program
GED - General Education Development
ESL - English as a Second Language
NBC - Nuclear, Biological and Chemical

INTRODUCTION

Background.

In the fall of 1978 the U.S. and German governments initiated an agreement concerning the provision of facility support services for the newly constructed Garlstedt barracks area (Clay Kaserne) housing the Second Armor Division (Forward). (Appendix A contains a copy of the agreement.) The agreement to provide facilities support services for Clay Kaserne through the Standort Verwaltung (STOV) represents the initiation of a new approach to the provision of garrison support services in USAREUR. Specifically, STOV was to provide the following types of facilities support:

- (1) Operation of utility systems;
- (2) Maintenance and repair of real property;
- (3) Alteration, additions and new construction;
- (4) Other facilities engineer services:
 - a. Entomologic
 - b. Custodial
 - c. Fire fighting
 - d. Grounds maintenance
 - e. Maintenance and repair of MKE
 - f. Maintenance and repair of M & S equipment
 - g. Supplies for services;
- (5) Laundry and dry cleaning services; and
- (6) Guard services.

While economic and long-range facility utilization considerations were driving factors in the approach used at Clay Kaserne, another prominent concern which was given somewhat less publicity was the potential of this approach for freeing Army personnel previously engaged in such support activities. Such services as custodial (4b), grounds maintenance (4d), and guard duty (6) are thought

to be major consumers of SM time at facilities using other support services approaches. Since these activities would not have to be performed by Army personnel at Clay Kaserne, time "freed" in this way could presumably be applied to mission-oriented training and the improvement of operational readiness. If SM activities could thus be redirected through the use of STOV support, any economic or logistical benefit would be supplemented by an improvement in "readiness" which might be of even greater value.

From a practical perspective, the STOV support system was initiated at Clay Kaserne in early 1979. It was at this point that construction was complete enough to allow a significant number of the 2AD(Fwd) personnel to occupy post facilities. By the end of the summer, 1979, most of the living facilities were operational and a full complement of personnel was present. However, the "amenities" were in various stages of completion, i.e., landscaping was not complete, recreational facilities were not operational, the base exchange and other services were housed in temporary facilities, etc. By the summer of 1980, the kaserne was virtually complete and STOV was fully operational (if still somewhat tentatively, while STOV and Division personnel learned to operationalize the complex agreement). It was roughly at this point that the impact of STOV-provided support services should have become evident in the activities of Division units.

The initiation of a new type of garrison support procedure and its operationalization in a single kaserne provides an almost ideal situation for evaluation. As part of the development of the entire concept for the Garlstedt facility an extensive evaluation program was planned. This program was formalized in a 9 January 1979 document prepared by the 21st Support Command by direction of the USAREUR Deputy Chief of Staff, Engineer. The action for the evaluation was given to 21st Support Command. There were nine "program evaluation objectives" specified in the plan:

(1) "Describe the STOV work management system and how it interfaces with the U.S. Army system";

(2) "Provide an economic analysis to compare . . . resources expended in the STOV effort with those which would be expended to accomplish the same functions with in-born personnel";

(3) "Provide a professional judgement on the quality of work performed by STOV";

(4) "Determine how commanders and troops feel about/perceive host nation support";

(5) "Identify BMAR if any exist during phase III of the program . . .";

(6) "Compare the STOV laundry/dry cleaning services with the existing NDSG effort";

(7) "Compare the STOV installation security guard services with the existing NDSG effort";

(8) "Provide recommendations as to how the Garlstedt support agreement should be modified/amended to improve host nation support"; and

(9) "Determine how the residents feel about/perceive living conditions in the Osterholz-Scharmbeck family housing area".

While these evaluation objectives address a wide range of relevant issues, none focus specifically on the impact of "host nation support" on unit readiness. For this reason HumRRO and the ARI Field Unit jointly suggested an evaluation objective which would directly inform the issue of the ways in which STOV might impact on factors related to the readiness concerns raised above. This proposal was sanctioned by the Office of the USAREUR DCSENG and was the basis of the evaluation effort described in this report.

The general objective of this evaluation was to determine if the utilization of STOV-type support had an impact on readiness. This objective was operationally defined in terms of the amount of time saved by the provision

of certain types of support services. The assumption implicit in this analysis was that saved time could be applied to readiness functions such as increased training in combat mission areas. The evaluation specifically addresses time saved and time utilization.

Approach

The measurement of unit readiness is, at best, an extremely tenuous exercise, and the unreliability of various attempts to make a direct linkage between a specific program and readiness is well known. Part of the problem stems from the inability of evaluators to agree on the components of readiness. Another part comes from the wide variety of factors which comprise readiness and which contribute to its successful achievement. For these reasons, it was determined that an evaluation of the impact of STOV support on readiness should focus on more concrete aspects of individual and unit behavior that could be considered to be components of readiness. These factors include the utilization of time for activities contributing to readiness and engagement in mission-oriented training activities.

The contribution of STOV to the readiness process, in terms of these two factors, was conceptualized as follows:

(1) Military units often exist in situations where a significant amount of time must be devoted to housekeeping activities whose direct contribution to readiness is difficult to identify. Among these activities are building and grounds maintenance and garrison guard missions.

(2) One of the activities whose contribution to readiness is generally assumed to be both direct and significant is mission-oriented training, individual and unit.

(3) A reduction in nonfunctional (vis-a-vis readiness) activities and a corresponding increase in functional activities should improve readiness.

(4) The utilization of STOV should reduce the time devoted to non-functional activities and permit an increase in functional training activities.

It follows from this set of propositions that using STOV in support of garrison activities should increase readiness through the increased availability (though not necessarily utilization) of time for mission-oriented training. This logic excludes, for the moment, the role of management in the utilization of time and training, obviously an important factor which could nullify any time "saved" by the utilization of STOV. It is the purpose of this evaluation to determine the extent to which this reallocation of SM activities has occurred in 2AD(Fwd), the one USAREUR unit where the STOV support system is in operation.

The evaluation addresses this issue using relatively concrete indicators, i.e., the measurement of time availability and utilization. Time availability is the result of not having to perform certain activities that must be performed by units under different systems. Examples relevant to the STOV support agreement include grounds maintenance (weeding, grass cutting, and other landscaping functions), certain types of internal building maintenance and repair, and guard duty. If these functions are regularly performed by other USAREUR units and not by STOV-supported units, there should be more time available for the STOV-supported units to engage in mission-oriented training. A corollary to simple availability is the amount of time made available. That is, how many person days in, for example, one month, are available for redistribution to other functions as a result of the STOV contribution to the support function over and above support normally provided to USAREUR units? If the difference is small, it will be difficult to identify specific ways that time could be redistributed to mission-oriented functions. As the amount of saved time increases, management has a better chance to produce desirable redirection of activities.

The reallocation of available time is the second major indicator, termed "Utilization" in this report. The increased availability of time does not necessarily mean that it will be used to the advantage of the unit's combat mission, since a number of factors can intervene. As mentioned above, the amount of time made available is a major consideration in utilization. A few hours or person-days in a month may be too insignificant to be transferred effectively to a mission-oriented training program. Another factor is the general demand for time from outside sources, i.e., the so-called training distractors. "Saved" time can be easily absorbed by such distractors, largely unnoticed by unit managers. Still another factor is the level at which any time saved is managed. Company commanders, for example, may be so involved in day-to-day management of their units that the availability of "additional" time does not become a conscious part of their planning function. Even at the battalion level, time planning is more likely to consist of filling a schedule of available time with "required" activities with little attention paid to the sources of that time or to time redistribution. Thus, neither company nor battalion commanders are likely to focus on the issues of direct concern in this evaluation. But, they do control the utilization of time, and in doing so they are the managers of any additional time made available through the outside provision of support functions.

The goal of this report is to determine whether or not more time is available in STOV-supported units and, given a positive outcome, whether or not that time is somehow channeled into mission-oriented training activities. (As the above discussion indicated, we are not assuming that company and battalion level managers are consciously redirecting any "saved" time into particular types of unit activity). We have attempted to accomplish this goal in three ways:

- (1) We have examined the kinds of support functions performed by STOV and those normally performed by supporting institutions in other comparable USAREUR

units. From this simplified analysis it has been possible to identify areas in which differences in time utilization might occur, i.e., where time savings are possible.

(2) We have looked at the ways in which units manage time in terms of the allocation of individuals for training and other types of activities on a day-to-day basis. This allocation occurs primarily at the company level, thus it was at this level that the analysis was performed.

(3) The final test of any advantage gained is how individuals actually spend their time. Ignoring, for the moment, any differences in management ability, specific resource limitations, and approaches to training, the bottom line is, do STOV-supported individuals spend any more time in readiness-oriented activities than traditionally-supported individuals?

In order to answer the questions posed above, we have collected data from both STOV and traditionally-supported USAREUR units. These data provide the basis for comparisons necessary to identify the impact of STOV support on contributors to readiness. The specific procedures used in this data collection are described in the next section of the report. Results are described in subsequent sections.

METHODOLOGY

Overview

Data needed to conduct the evaluation included: (1) a description of support services performed by STOV vs. support organizations in comparison units; (2) a description of assigned time utilization in units; and (3) a description of individual time utilization. These data were collected in the five battalions of 2AD(Fwd) and in three comparable units located in other parts of Germany.*

Support service information was collected from the STOV support agreement (Appendix A) and from representatives of support organizations in comparison units. This information was meant to clarify the basic issue of the potential for creation of additional time to be devoted to operational readiness functions. Insofar as differences in responsibilities are apparent at this primary level, we can expect to find further difference in time utilization. This is, of course, only the most crude indicator and actually forms part of the basic assumption upon which the evaluation was initiated. Nevertheless, the results of this examination showed less difference in responsibility than may have been expected.

Organizational time allocation was measured on the company level by obtaining a report on the assignment of individuals within the unit to differing types of activities during the workday. This procedure permitted the specification of what might be considered the unit's management approach to time allocation. In aggregate form it describes the proportion of time spent in each of 22 different activity categories. These categories, including training, maintenance, administrative activities, and service support type activities, were the basis for identification of differences in time utilization between units.

* 1/33 Armor - Gelnhausen; 1/10 FA - Schweinfurt; 1/4 Infantry - Aschaffenburg

Individual time utilization is the ultimate indicator of the impact of management and support factors. Data were collected from samples of individuals attached to the 2AD(Fwd) and control units. These data were collected using a time utilization survey operationalized in the form of a "time diary" which has been widely used with civilian populations.* Data collected in the diaries describes how soldiers spent a typical 24-hour day during the summer of 1980. Aggregated, these results provide an hour by hour breakdown of how these soldiers actually spent their working days. At this level, with time divided into over 100 work, leisure, and daily function activities, it is possible to get a detailed picture of mission-oriented activities in both experimental (STOV-supported) and control units.

Analyses relevant to the objectives of this report were performed to determine (1) if unit time utilization differed in those units with and without STOV support; (2) if individual time utilization differed in units with and without STOV support; and (3) if unit reported time utilization differed from individual reported time utilization in STOV-supported units. A more detailed analysis of individual time utilization, i.e., a more complete analysis of how USAREUR soldiers spend time, will be presented in a subsequent report. A more detailed description of measurement instruments and sampling procedures are presented below.

*Robinson, John P. How Americans Use Time: A Social-Psychological Analysis of Everyday Behavior. New York: Praeger Press, 1977, and How Americans Used Time in 1965. Ann Arbor, Mich.: Institute for Social Research, 1977.

Measurement

Unit Time Utilization: Data were gathered using the instrument shown in Appendix B. First Sergeants from each participating company were asked to describe the activities of all E-1 through E-5 personnel in their units on eight different days over a period of eight weeks during June, July, and August 1980. Once data were aggregated, these descriptions provided the means to construct a "typical" week during this period.

Two kinds of data were collected with this instrument. First, information on how company personnel spent a basic working day was provided in ten categories, (1) Regular Mission-Oriented Training; (2) On-Job Training (OJT) Assignment; (3) Maintenance Training; (4) Regular Job; (5) Off-Post Schools; (6) Leave; (7) Exercises; (8) Testing; (9) Day Off; and (10) Other Activities. Other activities were subsequently broken down into 12 additional categories which included many of the support-type functions which are a primary focus of this report. These categories include:

- (10) Charge of Quarters (CQ) [Staff Duty NCO (SDNCO), CQ Runner, and similar administrative duties];
- (11) Illness [sick call, etc.];
- (12) Temporary Duty (TDY) [other than schools];
- (13) Personal Appointments [e.g., Judge Advocate General (JAG), Chaplain, etc.];
- (14) Absent Without Leave (AWOL)/Confinement;
- (15) Guard Duty [interior];
- (16) On-Post Schools--German Orientation [Unit Orientation Program (CIPCO), Headstart, Gateway];
- (17) Extra Duty [as part of Non-Judicial Punishment (NJP) or other punishment];
- (18) Special Details [to higher HQ, community service, ceremonies, assisting other company functions, fix-up, paint-up, etc.];
- (19) Administrative Leave [moving, in-processing, out-processing, etc.];
- (20) On-Post Schools--Basic Skills [Basic Skills Education Program (BSEP), General Education Development (GED), High School, English as a Second Language (ESL), etc.];

(21) On-Post Schools--Military [e.g., NCO, driver training, etc.];

(22) Guard Duty [perimeter].

Certain of these categories require additional explanation. A distinction was drawn between Mission-Oriented Training and Maintenance because time spent in maintaining equipment, from tanks to individual weapons and equipment, often requires a large part of the unit's time and often varies widely across units, and because, while it contributes to readiness, it is not generally part of operationally-oriented training. The distinction is, of course, arbitrary, and is used here only to highlight the formal training activities which are of special interest to this study. Another category of special interest is defined as Regular Job. This category identifies people whose garrison MOS and job responsibility is the same as their field responsibility. Examples include cooks, mechanics, clerks and supply specialists. These people are concentrated in support units and headquarters companies, and their training, other than required classes, e.g., first aid, Nuclear, Biological and Chemical (NBC), etc., is conducted in the performance of their regular jobs. These jobs do not change regardless of the outside or support requirements placed on the unit.

Data in Categories 1-22 were collected in half-day units. That is, First Sergeants were asked to indicate how many half days were allocated to each type of activity in their companies for the particular survey day. The total days accounted for equalled the number of E-5's and below in the unit. The half-day unit was used because it was the smallest time unit which could be readily accounted for by First Sergeants for this type of reporting requirement. The data were collected only for the "work day". Off-duty activities were not included in this category of information; neither were activities which did not constitute at least half of the soldier's work day. Thus, some richness in detail was lost in order to facilitate data collection procedures.

The second type of data collected on this instrument were data on short duration special activities, such as extra duty, special details, and other non-training, non-regular work activities that took less than one-half day. These data were measured in hour blocks and represent the kinds of activities generally described as training distractors. They were collected in an attempt to obtain a clearer picture of the extent of distractor infringement on the unit's training time, especially in those instances where less than a half-day per person was required to complete the task. These data were meant to supplement data collected in the major, half-day portion of this instrument. Unfortunately, the results of this effort were less than successful because the reporting individuals, First Sergeants, did not command information on individual activities in sufficient detail to provide complete results for their units. Therefore, the analysis of these data have not been included in this report.

Individual Time Utilization: The second principal data collection vehicle used in this study was the individual time diary (see Appendix C). The diary is an open-ended survey instrument which asks respondents to describe in detail how they spent a particular 24-hour period. Five categories of information are collected: (1) a primary activity for the time period; (2) when that activity was done; (3) where the activity was done; (4) with whom the activity was done; and (5) the nature of any secondary activities done during the same time frame. The 24-hour period was used because of the potential for long or odd work days and because of an interest in the use of off-duty time in conjunction with another study which will tap these data. Aggregated time spent in primary training and facilities support activities is the primary focus of this report. Activities reported were divided into over 100 categories and aggregated across individuals. (The categories follow those used by Robinson, op. cit., and are presented in Appendix D.)

Sampling

Units used in the study include the 27 companies which comprise 2AD (Fwd), and 15 companies from three other battalions in Germany. The unit time utilization instrument was filled out by all company First Sergeants for the same days on which individual time utilization data were collected. Thus, it is possible to compare unit and individually reported time utilization.

Individual data were collected for a sample of individuals in each unit. The sampling was done from a complete list of Division personnel and each potential participant was selected by name. All E5's and below were included in the base population. In the 2AD(Fwd) a total of 378 diaries were completed by a randomly selected sample of individuals. Diaries were filled out on eight different days over an eight-week period. Individuals were randomly assigned to a particular day for completing the diary. For the 2AD(Fwd) one day in each week was used. Responses for each day are reported below:

June 18-19 (Thursday)	- 47
June 24-25 (Wednesday)	- 29
June 30 - July 1 (Tuesday)	- 51
July 10-11 (Friday)	- 65
July 12-13 (Sunday)	- 37
July 20-21 (Monday)	- 69
July 25-26 (Saturday)	- 42
August 5-6 (Wednesday)	- 38

Individuals selected for those days who were unable to be present because they were physically absent from the post, e.g., on leave or TDY, were included in the first sample and coded as having performed the particular activity indicated. There were 193 of these individuals, bringing the total days accounted for to 571.

There were two types of non-response. The first occurred when selected personnel did not appear at the briefing session. Since responses were anonymous, it is not possible to characterize these non-respondents, who constituted about 40 percent of the originally selected sample. The second type of non-response occurred when individuals attended the survey briefing, but did not return a completed diary. This group constituted about 20 percent of those who received the initial briefing. Again, anonymity prevents a detailed description of this group of non-respondents. In total, about 55 percent of the originally selected sample who were on post at the time of the survey (469 out of 847) did not respond. However, it is difficult to determine what, if any, bias this non-response created in survey results. Results reported here will be treated as though the sample were complete, but the reader should be aware that possible biases could exist. In general, the authors would hypothesize that non-respondents were somewhat less interested in the Army and an Army career than respondents. We made this inference based upon the fact that appearance at the briefing was a required military formation, although participation in the survey was voluntary. Other factors, such as duty requirements, were likely to have been randomly distributed across selected sample members and, therefore, should create no biases in the results. Participation in the survey required no regular duty time since surveys were distributed and collected just after the close of a regular duty day.

Sampling for control units was done using the same procedures. Administration, however, was accomplished in one week blocks for each battalion-sized unit, i.e., one battalion was surveyed for seven consecutive days before another was begun. The reconstructed weeks were thus created across battalions rather than across days as in the experimental unit. This disparity should make little, if any, difference in results. Control unit survey schedules were as follows:

<u>Unit</u>	<u>Time</u>	<u>N</u>
1/33 Armor	18-25 Aug 1980	162
1/10 FA	23-30 June 1980	89
1/4 Inf	18-25 Aug 1980	80

Administration Procedures

Unit Time Utilization: Since only working times were included in these data, First Sergeants were asked to provide information for the day on which time diaries were completed. Forms were given to all units in advance and were collected in the afternoon of the specified day. Thus, unit responses corresponded to the full work day for which diaries were being completed. This procedure permits direct comparison of unit reported time distribution with time distribution as reported by a sample of individuals in those units.

Time Diaries: Participating individuals were briefed on procedures for completing the diary at 1700 hours or at the beginning of the 24-hour survey period. The briefing took about 20 minutes and was included as the first activity in the 24-hour period. Respondents then took the diaries with them and returned at 1700 hours on the next day with completed diaries.* Thus, our "days" are slightly artificial in that they include the time taken to attend the survey briefing. This procedure, while somewhat awkward in terms of diary results, was the best logistical model given the limitations on data collection imposed by unit representatives, i.e., data collection should not interfere with the normal working day.

Time Sampling

One additional issue relevant to the generalizability of the results is the specific period or seasonality of the sampling time frame. There are two

*Weekend days were handled somewhat differently. Diaries were distributed on Friday at 1700 and picked up on Monday morning at 0800. For the Sunday-Monday time frame, diaries were distributed at 0800 on Monday and filled out from recall for the previous 16 hours, back to 1700 Sunday evening. The remainder of the day was completed the same as other weekday administrations.

questions of interest. The first is whether activities are different in the summer than in other times of the year and the second is whether the eight day sample used here is representative of all types of unit activity patterns.

With regard to season of the year, it is evident that off-duty activities are likely to be different in the summer. On-duty activities may also differ (or be limited by weather) but it is not clear that such differences in content constitute a change in the focus of activities. That is, more training may take place out-of-doors in the summer, but this does not necessarily mean that more hours are devoted to "training".

The second question presents a more difficult problem. It is clear that the eight days used in the experimental unit [2AD(Fwd)] and the three weeks used for the control groups are not a probability sample of all days in the year. In addition, the researchers knew in advance that individuals in the various units would be generally available during the time of the diary administration (i.e., there were no major exercises planned for those periods). And finally, no attempt was made to determine if the eight participating battalions operated on particular time management schedules, such as X-Y-Z.

These conditions suggest at least one specific bias in the results, i.e., major exercise time will be underrepresented, as will field duty time, since there were no major training or testing events, e.g., ARTEPS or record firing at a major training area (MTA), occurring during the data collection periods. Thus, the results presented in this report are more representative of the garrison situation than of a total training year. This may have the effect of diminishing the apparent level of training/testing being conducted, since exercises and testing constitute major concentrated "training" segments. However, it should also be noted that these activities are usually of short

duration and that they are subject to the same "inefficiencies" in time utilization that are evident in the garrison situation.

In summary, except for the deletion of the specific activity types discussed above, there seems to be no reason to assume that the garrison activity time represented in this report is any different than garrison activity taking place at any other time of the year, in terms of the distribution of time across training activity types. Training cycle issues are neutralized in part by the number of different battalion-sized units sampled, any one of which might have been operating in any one of a variety of positions in a cycle system, and in part by the duration of the data collection period (three months). In order to overcome problems which do exist, it would be necessary to randomly sample days throughout the calendar year and to collect diary information from those in field as well as in garrison situations. While this would certainly be a desirable direction, in terms of understanding the total picture of time utilization, it was neither practical nor necessary in order to adequately address the issues raised in this report.

Results of the data analysis are reported in the following sections. These results focus on differences between experimental and control units in the use of time for training purposes, the amount of time spent for garrison support types of activities, and the way in which individuals spent time. A second type of comparison involves the difference between unit and individually reported use of time. The results focusing on detailed time utilization by individuals are presented for the experimental units only, since data processing was not completed for control units at the time of writing. Detailed diary results are, therefore, presented in a separate section and pertain only to 2AD(Fwd).

RESPONSIBILITY FOR SUPPORT ACTIVITIES

Three major service activities were identified as being both primary foci of STOV support and as being significant distractors to mission-oriented activities. They were: (1) building custodial and repair services; (2) grounds maintenance; and (3) the guard function. Since these are the only areas that are unit specific, they will be the primary focus of a comparison in the availability of additional time. In this Section a brief comparison of differences between 2AD(Fwd) and control units regarding responsibility for these tasks will be drawn. Based on this comparison tentative conclusions about the availability of additional time in 2AD(Fwd) units will be presented.

In addition to reviewing the basic agreement which describes general STOV responsibilities, representatives from all experimental and control units were interviewed to determine the kinds of support functions actually provided by their units. Each of the three areas will be discussed below.

Under the terms of the agreement, STOV is to provide most basic support services for the maintenance of on-post living quarters. These services would include most of the small repairs and maintenance, e.g., broken windows, minor structural damage, painting, etc. Experience in the STOV-supported units, thus far, has shown that most of these services have been provided.* There was general agreement among First Sergeants that most of the fix-up projects were adequately handled by STOV.** In contrast, representatives of control units indicated that while some of these services "should be" provided by facilities

*Older buildings, such as those being used in the control units, may require more of this type of maintenance, thus placing a larger burden on the more traditional facility engineer support systems. This factor is difficult to measure within the scope of this analysis.

**This is not to say that there were no complaints; several difficulties were mentioned, but these problems are beyond the scope of this analysis.

engineers, they often were not provided. Thus, much of the basic upkeep of the barracks has been left to the units themselves. Among the units examined, then, it seems as though the control battalions have had to undertake a substantially greater number of these functions than units in 2AD(Fwd). It was not ascertained from these interviews, however, just how much time (how many person days) might normally be involved in these activities.

The second area examined was outside maintenance. Again, it was determined that the responsibility for general landscaping (grass cutting, hedge trimming, etc.) around the immediate barracks areas and the periodic responsibility for the upkeep of certain common areas was assumed to a much greater extent by the control units than by the STOV-supported units. In the latter units virtually all grounds maintenance was accomplished by STOV.*

The final area for comparison concerned guard responsibilities. Here the comparisons are more complex and the differences, if any, are smaller. While basic post security and installation police are provided through STOV, problems with internal security dictated that the units provide additional protection for motor pool and other high risk areas. Thus, the STOV-supported units do have regular guard duty responsibilities which are rotated through the companies (about once a month for weekdays and once every three months for weekend days). It is not clear whether this requirement was foreseen by those who developed the support plan, but the impact on units is clear.

*Again, there was some disagreement about the quality of this support, but it was generally acknowledged that the presence of STOV all but eliminated the use of unit supplied personnel in this area. The one exception was general "police" of the area.

All control units also have a guard responsibility. For some it is a regular rotating guard. For at least one unit, internal police and basic gate guard (a community responsibility to which the unit contributes personnel) are also provided. Because units are situated on somewhat different types of installations, the number of personnel required varies, but it is clear that all units, STOV-supported and control, are saddled with some kind of guard/police function.

In summary, the largest differences in STOV-related responsibilities fall in the areas of building and grounds maintenance. In all instances, STOV-supported units, i.e., 2AD(Fwd), are required to assume far fewer functions in these areas (apparently in terms of both formal requirements and in the actual level of support received). However, the extent of these differences, i.e., the amount of time actually "saved", was not addressed in this analysis. In the third area, guard duty, the difference seemed to be minimal since all units had some regular guard responsibilities. In the next two sections we shall examine empirical results addressing the utilization of time ostensibly made available through the provision of STOV support.

UNIT TIME UTILIZATION

Unit time utilization was reported by company First Sergeants in terms of the number of half-days devoted to each of the 22 activity types. The objective was to determine the amount of time (reported here in terms of proportion) each unit assigned to each activity type over a typical week.* The First Sergeants described, in terms of the activity categories, how all E5's and below were scheduled to spend their time on that particular day (i.e., what the unit expected them to be doing). The reports were aggregated across companies and days to produce the results reported here.

The distribution of time for the entire reconstructed week for all STOV-supported units and for control units is presented in Table 1. These results include weekends as well as weekdays. The table shows that for both groups the most common activities are Regular Training, Days Off, Maintenance, and Regular Job, although there is considerable variance between the two groups. Much less important, but still significant in terms of the absolute number of person-days consumed, is time spent on Special Details (5% and 4%) and in On-Post Schools (6% for the control units). (Dashes indicate that the proportion of time spent was less than .5%.**)

*In this instance the work week for 2AD(Fwd) was six working days during the summer of 1980.

**Several of the original categories have been eliminated from these presentations, since data in these categories was not collected in conjunction with the time diaries. In order to make all comparisons comparable, both unit and diary data from the STOV-supported units were recalculated to accommodate the missing values. Complete results with missing categories included are provided in Appendix E. While it is unfortunate that these data are not available for all comparisons, it is significant only in the case of Category 6, Leave/Pass, where 8% of the recalculated total time is spent. Relative differences, which are the main focus of this report, are not affected by the absence of these data.

Table 1. Time Utilization as Reported by
Units: Total Week Activities

	STOV- Supported Units	Control Units
Regular Training	22%	34%
OJT	01	02
Maintenance	13	09
Regular Job	21	07
Testing	03	02
Day Off	29	30
CQ	01	02
Illness	-	01
Personal Appointments	-	-
Guard Duty	02	02
On-Post Schools-German	01	-
Extra Duty	-	-
Special Details	05	04
Administrative Leave	01	01
On-Post Schools--Basic Skills	-	06
On-Post Schools--Military	01	-
Not Ascertained	-	-
	100%	100%
Number of Days	22394	8091

For both groups, the total number of days being accounted for is 30,485, or the equivalent of over 80 years of active service. Thus, about 25 of those 80 years are spent in Days Off. About 33 years are spent in Training and Regular Job activities, and about nine years are spent on Maintenance (not including work done by those with a maintenance MOS). The remaining activities take up proportionally less time and might be considered to be insignificant.

Before drawing direct comparisons between STOV-supported and control units, it is necessary to further refine the data. The first important breakout is the separation of weekends from weekdays (workdays). Table 2 shows these results. As expected, the primary difference is that the Days Off category is greatly diminished. Workday Training activities take up 30% and 45% of the total assigned time. Regular Job and Maintenance activity proportions are also increased. Additionally, Special Detail proportions are increased, indicating that the majority of these activities take place during the week. There are, however, still significant differences in Training time between STOV and control units. These differences are largely accounted for in the next refinement of the data.

Table 3 shows results with STOV-supported units divided at the battalion level into combat and support units. As expected, this separation greatly increased the proportion of time spent by combat units in Regular Training, as opposed to Regular Job.* Complementing this change, the proportion of time spent on Regular Job activities in support units was much higher than had been previously indicated.

*All control units are combat.

Table 2. Time Utilization as Reported
by Units: Weekday and Weekend
Activities

	<u>STOV-Supported Units</u>		<u>Control Units</u>	
	<u>Weekday</u>	<u>Weekend</u>	<u>Weekday</u>	<u>Weekend</u>
Regular Training	30%	-	45%	-
OJT	01	-	02	-
Maintenance	17	02%	12	-
Regular Job	29	01	09	-
Testing	03	-	02	-
Day Off	05	93	09	92%
CC	01	02	02	02
Illness	01	-	01	-
Personal Appointments	-	-	-	-
Guard Duty	02	02	02	02
On-Post Schools--German	01	-	01	-
Extra Duty	-	-	-	-
Special Details	07	-	05	03
Administrative Leave	01	-	02	-
On-Post Schools--Basic Skills	-	-	07	01
On-Post Schools--Military	01	-	01	-
Not Ascertained	-	-	-	-
	99%	100%	100%	100%
Number of Days	16420	5974	6064	2027

Table 3. Time Utilization as Reported by
Units: Combat vs. Support Units
(Weekdays)

	<u>STOV-Supported Units</u>		Control Units
	<u>Combat</u>	<u>Support</u>	<u>(All Combat)</u>
Regular Training	35%	15%	45%
OJT	01	02	02
Maintenance	19	11	12
Regular Job	19	59	09
Testing	04	01	02
Day Off	06	04	09
CQ	01	01	02
Illness	01	01	01
Personal Appointments	-	-	-
Guard Duty	02	-	02
On-Post Schools-German	02	-	01
Extra Duty	-	-	-
Special Details	08	05	05
Administrative Leave	01	01	02
On-Post Schools--Basic Skills	-	-	07
On-Post Schools--Military	01	-	01
Not Ascertained	-	-	-
	100%	100%	100%
Number of Days	12408	4011	6064

There are, however, still important differences between the STOV-supported combat units and the control (combat) units, Column 1 vs. Column 3. Control units still spent 10 percentage points more time in mission-oriented training than STOV units. The bulk of this difference in work time activities is probably accounted for in the Regular Job category where STOV units spend 10 percentage points more of their time. Why this particular difference should occur is unclear. It could be accounted for by different assignments of certain MOS's which encompass most of the Regular Job activities, e.g., cooks, mechanics, etc. If these individuals are assigned to the unit, the Regular Job proportions go up. If they are carried under support functions or removed from unit accountability in some other way, proportions would go down. In any event, when the two categories are combined, the Training/Regular Job aggregate accounts for 54 percent of the time in both STOV-supported and control units.

While there are other differences between STOV and control units, the area of major concern in this study is Special Details. This category includes a conglomerate of many of the training distractors common to Army units. These include details to higher headquarters, community related details, ceremonies, special detail drivers, fix-up/paint-up details, grounds maintenance, and other similar activities. It is in this category that we might expect to find some differences in unit activity levels. While differences, however small, do exist, they are in the wrong directions. It is the STOV combat units which show a somewhat higher, 3 percentage points, rate of Special Detail activity. The difference, however, can be largely explained by one special event which took place in 2AD(Fwd) on a data collection day. This event was a Change of Command ceremony which took a large proportion

of the Division's time for that day. By itself this event accounts for all of the difference between the STOV and control units, who had no similar major event during their data collection periods.

Once this difference is explained, however, the results suggest virtually no difference in the assigned time (in half-day units) STOV and control units devote to these types of activities. While the level of detail makes the comparison somewhat crude, it appears that the impact of STOV on the proportion of work time and the proportion of time devoted to Special Details (which include the two major categories of activities where differences were expected) is not significant. In the next Section, similar comparisons will be made using data collapsed and aggregated from the individually prepared time diaries.

TIME UTILIZATION BASED ON DIARIES

Time diaries were used to collect detailed information on how SM's spent their time. Respondents completed diaries which covered 24-hour periods, thus including both duty and off-duty activities, in detail down to 15-minute blocks of time. The workdays on which diaries were completed correspond to the days for which First Sergeants completed unit time utilization forms. It is therefore possible to compare the units' perception of time utilization (assignment) with the individuals' reported time usage.* It is also possible to compare diary reported time usage across units. These comparisons will be presented in this Section at the level of the categories used in the previous Section.**

All diary data used in this analysis were converted to the basic categories in which unit time was collected. Diaries were examined by a trained coder in order to identify the basic activity which occupied each half of a workday. On the basis of this evaluation, an assignment to one of the categories was made.***

*The "individuals", in this instance, refers to a sample of people from each unit who are in turn aggregated over unit types. For each of the groups we focus on in this analysis, the respective N's are: Combat workday STOV-supported = 232; Support workday STOV-supported = 70; and Control (combat) workday = 251. (Weekends are not included for the STOV units.) In comparing individual sample results to unit reported results, the following approximate sampling error levels can be expected: (1) for combat STOV, $\pm 7\%$; (2) for support STOV, $\pm 12\%$; and (3) for Control, $\pm 7\%$.

**As in the previous Section, a reduced number of categories, excluding, most importantly, Leave time, are described here. A complete breakout for STOV-supported units (across all 22 original categories) is presented in Appendix F.

***In some instances the only interpretation possible for the coder was probably far different than the assignment made by unit leaders. A particular case in point is the designation of Days Off. While a small percentage of individuals were given "days off" on a regular basis, e.g., after CQ or some earlier extra work, a somewhat larger number indicated that they did no work on the reported day. Diaries were anonymous and there was no way to check to determine whether the fact that they reported no work meant that they had an official Day Off or were malingering. Thus when an individual did no identifiable work with which to categorize the day's effort, a Day Off code was applied.

Additionally, in some instances this assignment became somewhat arbitrary because no one activity dominated the individual's day. Assuming some discrepancy based on these decisions, the diary and unit comparisons should reflect, in a fairly accurate way, the similarities and differences between the assignment, as perceived by the First Sergeant, and the actual effort, as described by the individual and mediated by the generality of the coding categories.

Table 4 shows results for the STOV units on workday activities.* Combat and support units are treated separately. For combat units there are differences in major activities in several areas, and although these differences are statistically significant, the absolute differences may be marginal. Keeping in mind that these comparisons deal with net, rather than gross differences, the pattern seems to be a reduction in diary reported Training days (35% to 29%) and a corresponding increase in reported Maintenance and Regular Job days (both 19% to 23%). One explanation for this difference may be the disparity between the First Sergeants' more generalized, training schedule approach to accounting for time ("Today we had weapons training.") and the Platoon Sergeant or Squad Leaders' actual conduct of the training (where weapons training may have lasted for two or three hours and weapons cleaning occupied the remainder of the day). Such a discrepancy could have been coded as a Maintenance day rather than a Training day in terms of diary reported time utilization.

A second small, but statistically significant difference occurs for Special Details, where diaries indicate less activity than units. Again, the lumping of activities into half-day blocks would reduce the impact of

*Again, 22 category results are presented in Appendix G.

Table 4. Comparison of Diary and Unit Reported Time Utilization on Unit Activity Categories (Weekdays) for STOV-Supported Units

	<u>Combat</u>		<u>Support</u>	
	<u>Unit Report</u>	<u>Diary Report</u>	<u>Unit Report</u>	<u>Diary Report</u>
Regular Training	35%	29%	15%	09%
OJT	01	01	02	-
Maintenance	19	23	11	13
Regular Job	19	23	59	53
Testing	04	01	01	01
Day Off	06	08	04	14
CQ	01	01	01	01
Illness	01	02	01	02
Personal Appointments	-	01	-	-
Guard Duty	02	01	-	-
On-Post Schools-German	02	01	-	-
Extra Duty	-	-	-	-
Special Details	08	05	05	04
Administrative Leave	01	01	01	02
On-Post Schools--Basic Skills	-	-	-	01
On-Post Schools--Military	01	-	-	-
Not Ascertained	-	02	-	-
	100%	100%	100%	100%
Number of Days	12408	232	4011	70

many detail activities which are of short duration. Also, First Sergeants, upon close questioning of some of their entries in the Special Detail activity category, often admitted that a detail specified as occupying half or even a whole day might actually take much less work time, but might "occupy" the detailed individuals for the extended period because of various forms of delay, interference, and lack of control.

Individuals in support units show a similar pattern in the reduction of Training days, but these days do not reappear in the Regular Job category (the largest block of support unit activity). Instead, the Days Off category increases by an even larger amount than was true for combat units (from 4% on unit reports to 14% on diaries). To us, this indicates even less control over individual activity.

Table 5 provides the same comparison for control units, and shows even more widely divergent results. Units report 45% of their days devoted to Training activities while individuals report only 17%. The differences are "accounted for" with the increased diary-reported activity in Maintenance (+19 percentage points) and Regular Job (+ 15 percentage points). In total, then, these three activity groups account for 66% of the time in unit reports and 72% in diaries. This is a statistically significant, but clearly not an important, difference. Again there are at least two possible explanations for these differences. The first is the procedure used in collapsing the diary data, which is both a methodological problem and a possible indication that assigned time and the use of time are radically different. The second explanation may lie in the extent of control unit commanders have over the hour-to-hour use of individuals' time. The assignment of a task, unless strictly monitored, may have less to do with what is actually done than we

Table 5. Comparison of Diary and Unit Reported
Time Utilization on Unit Activity
Categories (Weekdays) for Control Units

	<u>Unit Report</u>	<u>Diary Report</u>
Regular Training	45%	17%
OJT	02	-
Maintenance	12	31
Regular Job	09	24
Testing	02	01
Day Off	09	15
CQ	02	02
Illness	01	02
Personal Appointments	-	-
Guard Duty	02	02
On-Post Schools--German	01	-
Extra Duty	-	-
Special Details	05	03
Administrative Leave	02	-
On-Post Schools--Basic Skills	07	02
On-Post Schools--Military	-	-
Not Ascertained	<u>-</u>	<u>01</u>
	100%	100%
Number of Days	6064	200

think. One way to address this issue is to look more closely at the detailed description of individual time utilization. The results of this analysis will be presented at a later date.

While problems exist in the interpretation of the comparison between unit and diary results, it is still possible to examine the direct comparisons of diary results across units, in this instance, a comparison between STOV and control units. Table 6 provides this comparison. In light of the large reported differences between control group unit and diary activity levels, the existing differences between diary activity levels of STOV and control combat units seem much more reasonable. For example, the activity with possibly the least expected difference is Regular Job where the services provided in each unit are often very similar. Diary reports show only one percentage point difference between the STOV combat and control units.* On the other hand, the difference in the proportion of time spent in Training activities is much larger, 12 percentage points. The difference is largely made up in the amount of Maintenance time used by each unit, where the control units exceed the STOV units by 8 percentage points.

As with the previous analyses using unit data, the overall amount of time spent in the three major activity groups, Training, Maintenance, and Regular Job, is about equal across each of the three unit groups: STOV combat (75%), STOV support (75%), and control (72%). Differences in emphasis apparently occur among these activities, but the answer to the basic question of what proportion of a unit's time is devoted to work/job related activities in a garrison situation is always about the same, 70-75%. In terms of the primary

*This is in contrast to much larger differences reported on unit time data. See Table 3 above.

Table 6. Comparison of STOV-Supported and Control Units on Diary Reported Utilization of Time (Weekdays)

	<u>STOV-Supported</u>		<u>Control</u>
	<u>Combat</u>	<u>Support</u>	
Regular Training	29%	09%	17%
OJT	01	-	-
Maintenance	23	13	31
Regular Job	23	53	24
Testing	01	01	01
Day Off	08	14	15
CQ	01	01	02
Illness	02	02	02
Personal Appointments	01	-	-
Guard Duty	01	-	02
On-Post Schools-German	01	-	-
Extra Duty	-	-	-
Special Details	05	04	03
Administrative Leave	01	02	-
On-Post Schools--Basic Skills	-	01	02
On-Post Schools--Military	-	-	-
Not Ascertained	<u>02</u>	<u>-</u>	<u>01</u>
	100%	100%	100%
Number of Days	232	70	200

focus of this report, this outcome suggests that the provision of STOV services does little to change the basic pattern and time utilization of supported units.

These data have also been used to look at the more specific issue of Special Detail activities. While the half-day time categories used are still somewhat gross, the results again suggest that if differences do exist, they occur at a more microscopic level. That the potential for differences exists in this area cannot be denied, but the proportion of time actually devoted to these activities, primarily barracks and grounds maintenance, is apparently small enough that it slips through the data analysis methods thus far reported. Further, even if the final analysis of detailed categorization of diary data finds differences in this area, they would probably not amount to more than a tiny fraction of the units' total work/job effort. This suggests that the impact of these Special Detail activities, if there is one, may be more psychological than physical.

Two additional issues must be addressed in connection with the goals of this report and the data used in the analysis. First, differences in the utilization of time across units, which in some instances seem to be substantial, merit considerable attention from a management perspective. While many factors may contribute to these differences, e.g., the availability of training areas, the type of unit, stages in a training cycle, etc., it seems that one primary factor is probably the way in which units are managed. Different commanders hold different perspectives on the distribution of personnel effort. It would probably be enlightening to examine individual unit differences to determine the extent to which such management differences exist and what impact they might have on performance.

The second issue relates again to the original focus of this study, i.e., the impact of STOV support. What our data have suggested is that STOV-supported units seem no more likely than other units to have a significant amount of additional time for training. This does not mean that the STOV concept is a failure. As we suggested at the beginning of this report, there are numerous other dimensions upon which the STOV experiment is being evaluated, many of which may be more important than the one evaluated here. Even some of the unit level management aspects of the STOV system which were not considered here, such as coordination, communication, and satisfaction, may have an important impact on unit performance whether or not there is more time made available for training.

In the final section of this report we begin to look at the detailed analysis (down to 15 minute intervals) of the time diaries. This analysis provides a closer look at training versus nontraining time use.

DETAILED TIME UTILIZATION

The time diaries provide a data base for examining detailed time use of sample individuals. Initial results for diaries completed in 2AD(Fwd) are presented in this section.* At the time of this writing, control unit data were not completely processed, therefore, comparisons cannot be made. These comparative results will be included at a later date.

The results of the analysis of diary distribution of time are presented in Table 7. For purposes of this report, the data have been collapsed into 18 categories. Nine of these categories deal with various types of work time activities. The remainder are concerned with non-work activities. The emphasis on work activities is aimed at obtaining a clearer picture of the relative position of training and non-training work time activities.** The table presents results based on a 24-hour day, so that results are not easily translated into work hours, but the relative position of each activity group is clearly discernable. Some collapsing of activities was done because the resulting categories more efficiently show differences between training and non-training work activities. A detailed listing of activity levels for all categories is presented in Appendix H, where all 148 categories are shown along with total hours, mean hours, and proportions of total hours.

*These results are based on initial coding into a total of 148 activity categories. In order to meet reporting deadlines, results are presented prior to completing coder reliability checks. For this reason, the findings presented here should be viewed as tentative. Our expectation is that even if some coder error should be detected, and later corrected, it will not significantly alter the basic distribution reported here.

**The original categorization, developed by Robinson (1977), used 98 basic activity categories. One major grouping included 10 work related subcategories the last nine major categories (designated by the numbers 10-90) remain largely unchanged as used in this study (some minor subcategory changes were made). The work activity group, however, required significant expansion to accommodate the level of detail required to address objectives in this study.

Table 7. The Individual Use of Workday Time

<u>Activity Category</u>	<u>Proportion of 24-Hour Day Devoted to Activity</u>
(1) Individual and Unit Mission-Oriented Training Activities	5.12
(2) Regular Job Activities	8.73
(3) Maintenance of Individual or Unit Equipment	4.34
(4) Special Duties (including: guard, CQ, details, formations, ceremonies, etc.)	5.54
(5) Extra Duty (as punishment)	.05
(6) Travel (to and from work)	1.57
(7) Waiting at Work	.55
(8) Travel (trips) at work	2.45
(9) Other work or duty time; non-training/job activities	.58
(10) Domestic Work	8.66
(20) Care to Children	.21
(30) Purchasing Goods and Services	2.01
(40) Private needs (meals, sleep, etc.)	41.87
(50) Adult Education and Training	1.45
(60) Civic and Collective Participation Activities	.09
(70) Spectacles, Entertainment and Social Life	4.55
(80) Sports and Active Leisure	3.21
(90) Passive Leisure	<u>8.73</u>
	99.71%

Of particular interest in Table 7 is the category Special Duties, which includes time spent in the two focus areas of this report, building and grounds maintenance. These activities were not presented in specific detail since so little of the reported time utilization was devoted to these functions [less than one percent for the 2AD(Fwd) sample]. On the basis of discussions with company First Sergeants, it appears that most required activity of this type in 2AD(Fwd) is accomplished through "extra duty" assignments, which are used as a punishment and control mechanism, rather than through formal unit assignment. This could be the result of the lower level of this type of activity required in these STOV-supporter units. Of 5.54 percent of total time spent on Special Duties, military formations and CQ-related activities account for 4.13 percent (or about 75 percent of the total). Company details account for only .29 percent of total time usage.*

It is interesting to note, however, that Special Duties take up slightly more of the individual's time than Individual and Unit Mission-Oriented Training activities (5.54 percent to 5.12 percent) and substantially less time than Regular Job activities (8.73 percent) across all types of units.** Maintenance time (4.34 percent) ranks slightly lower than the other activity groups discussed thus far.

Viewing these figures in terms of the division of a typical work day, about 73 minutes are spent on Individual and Unit Training, 126 minutes are spent on Regular Job activities (cooks, mechanics, clerks, etc.), 62.5 minutes are spent in Maintenance functions, and 80 minutes are spent doing Special

*See Appendix H for detailed figures.

**These data include both combat and support units in 2AD(Fwd).

Duties in 2AD(Fwd). Summed, these times account for 341.5 minutes or 5.69 hours in an eight-hour work day.* This figure seems somewhat high, probably because many respondents did not include Waiting or similar nonwork periods which may have occurred during the basic work blocks reported in their diaries. For example, a respondent may have said that three hours were spent in the motor pool working on tank maintenance, but may not have included breaks or waiting periods which occurred during that time. Thus, actual work time is likely to be slightly inflated.

Two other activities which do account for a certain percentage of work time are Waiting (.55 percent) and Travel while at Work (2.45 percent). While these figures are small, they do represent significant blocks of time for some individuals. In addition, we feel that the Waiting figure underrepresents the actual amount of time spent in this mode (as discussed above). Further evidence on this point is available in another time utilization study using observation rather than self report.** This study found somewhat greater proportions of time devoted to waiting during training activities, however, our data do not permit this type of estimate.

The remaining categories reported in Table 7 are nonwork activity groups. These activities account for over 75 percent of total time and include many work time activities which obviously take place during duty-hour time frames. Of course, the most significant of these is Eating, which, in this presentation, is reported as part of Private Needs. Overall work and nonwork time do not seem to be out of line with expectations based on a traditional eight-hour working day. Analysis of how these figures [for 2AD(Fwd)] compare to those for other units must be deferred pending the availability of control group data.

*These figures should be interpreted with caution since the eight-hour work day is only an assumption made for the purpose of providing some comparison.

**Bialek, Hilton; McGuire, W. J.; and Zapf, D. W. Personnel Turbulence and Time Utilization in an Infantry Division. Alexandria, VA: HumRRO, 1977.

APPENDIX A

Administrative Agreement

between

The Commander in Chief, United States Army, Europe, and
Seventh Army

and

the Federal Minister of Defense of the Federal Republic
of Germany

concerning

the Garlstedt Cantonment Area

The Commander in Chief, United States Army, Europe, and
Seventh Army

and

the Federal Minister of Defense of the Federal Republic
of Germany

- intending to further the cooperation within the NATO Alliance;
- with the objective to relieve the US Forces in the Federal Republic of Germany of tasks, thus increasing the fighting strength

have agreed to settle the consignment and administration of the Garlstedt cantonment area as follows:

PART I.

Consignment of the Garlstedt Cantonment Area

Article 1
Consignment

Pursuant to Article 48, para 3 a, Supplementary Agreement to NATO SOFA, the Federal Republic of Germany will make available exclusively to the US Forces the Garlstedt cantonment area with pertinent structures, facilities, and operational installations, to include building appurtenances on a rent-free basis for use.

Article 2
Site Map

Location and size of the Garlstedt cantonment area are shown on the site map attached as Annex A.

Article 3
Condition Report

The condition of the Garlstedt cantonment area and the pertinent structures, facilities, and operational installations, to include building appurtenances, is reflected in the Condition Report to be attached as Annex B.

Article 4
Date of Consignment

The Garlstedt cantonment area will be consigned to the US Forces on 1 October 1978. Objects which are not completed on that date will be turned over separately upon completion.

Article 5
Applicable Law

Questions resulting from the consignment and use of the Garlstedt cantonment area, as well as the rights and obligations of the parties to this agreement, will be settled pursuant to Part II of this agreement, and according to the terms of the NATO SOFA, the Supplementary Agreement, and the Protocol of Signature to the Supplementary Agreement.

PART II

Administration of the Garlstedt Cantonment Area and
Support of the US Units Stationed There

Article 6

Tasks of the Bundeswehr Administration

1. As provided in this agreement, the Bundeswehr Administration will assume the administration of the Garlstedt cantonment area and the support of the US units stationed there. This includes:
 - Furnishing of services and supplies incidental thereto, in accordance with Article 7
 - Facilities maintenance, in accordance with Article 8
 - Performance of alterations, additions and new constructions, in accordance with Article 9.
2. Accessories and supplies required for the accomplishment of the tasks pursuant to paragraph 1 of this Article will be procured by the Bundeswehr Administration. Exceptions are subject to specific agreements to be concluded on a case-to-case basis.
3. The administration and support will be performed in a manner ensuring compliance with respective minimum standards - particularly as they pertain to the preservation of structures - as prescribed in German laws and regulations and by respecting mutually agreed rules of implementation.

Article 7

Services and Supplies Incidental Thereto

The Bundeswehr Administration will furnish the US Forces the following services and supplies incidental thereto required for the utilization of the Garlstedt cantonment area:

1. Operation, maintenance and repair of utility lines, to include the pertinent distribution systems, for heat, electric power, water and sewage inside the Garlstedt cantonment area.
2. Supply of heat and, where the necessary generators are available, emergency power and operation, maintenance and repair of the pertinent technical facilities and installations. Fuel required for this purpose will be made available by the US Forces.
3. Operation, maintenance and repair of the domestic water pump station and the waste water pump station.

4. Collection and disposal of all types of solid and liquid waste, with the exception of household refuse.
5. Cleaning of buildings.
6. Policing of premises, to include street cleaning and winter services.
7. Cultivation and maintenance of landscaped areas, to include sports fields.
8. Fire suppression and fire prevention, as well as maintenance and repair of installed fire fighting equipment and installed fire extinguishing systems.
9. Guard services.
10. Laundry and dry cleaning services.
11. Control of epidemics and pest control.
12. Maintenance and repair of maintenance and service equipment and vehicles to be provided by the Bundeswehr Administration in accordance with Article 24, para 1.
13. Alterations, additions, and replacement of maintenance and service equipment and vehicles made available by the Bundeswehr Administration and the US Forces.
14. Operation and administration of a shop stock, to include repair parts supplied by the US Forces.
15. Support of US units in their dealings with both German agencies and civilian firms.
16. Any other support as mutually agreed.

Article 8
Facilities Maintenance

The Bundeswehr Administration will assume facilities maintenance of the Garlstedt cantonment area according to the "Directives for the Implementation of Construction Work by the Federal Republic of Germany within the Area of Responsibilities of the Finance Construction Administration (RBBau)" and any mutually agreed special US requirements. This will apply also to the maintenance and repair of roads, sidewalks and other paved surfaces within the Garlstedt cantonment area.

Article 9
Alterations, Additions and New Constructions

Alterations, additions and new constructions with regard to structures, facilities, operational installations, utility lines, roads, sidewalks and paved surfaces within the Garlstedt cantonment area including building appurtenances will be initiated by the Bundeswehr Administration at the request of the US Forces. The RBBau and any mutually agreed special policies will apply.

Article 10
Request for and Determination of Services

1. Services and the supplies incidental thereto, to be rendered under Article 7, will be furnished at the written request of the US side. The requirements and the jointly-signed plan of expenditures will be consolidated and constitute the ordering document required by US law. The form and content of these documents will be formulated jointly by the responsible US agency and the Bundeswehr Administration.
2. Facilities maintenance work, pursuant to Article 8, as well as alterations, additions and new construction work pursuant to Article 9, will be determined, as a matter of principle by means of inspections carried out in accordance with RBBau. The inspection is to be accomplished in a timely manner so that the requests for funds and notifications of expenditure according to RBBau may be made known to the responsible US agency by 1 February of each calendar year.
3. Kind and extent of work, pursuant to Article 8, which is mandatorily prescribed in German legal provisions and administrative regulations to preserve the operational safety, will be made known separately to the responsible US agency by Standortverwaltung Schwanewede by 1 February of each calendar year. The responsible US agency will place the respective orders which will be included in the plan of expenditures for the coming fiscal year. Any construction work pursuant to Articles 8 and 9 shall be identified separately in all documents.

Article 11
Furnishing and Procurement of Services

1. Services pursuant to Articles 7 through 9, will be furnished in compliance with legal and administrative regulations applicable to the Bundeswehr Administration and in accordance with mutually agreed rules of implementation.
2. If the Bundeswehr Administration is unable to furnish the agreed services and supplies, pursuant to Article 7, with its own personnel and materials, it may commission a civilian firm or another third party after having informed the responsible US agency thereof.

3. As a matter of principle, the Construction Administration will be directed to carry out construction measures within the scope of the valid competence-defining regulations applying to Bundeswehr construction measures. Major construction measures pursuant to Section E of RBBau will be initiated by the Federal Ministry of Defense.
4. Contracts will be awarded in accordance with the valid legal and administrative provisions applying to the Bundeswehr and the Construction Administration. The principles of free market economy and open competition will be taken into consideration.

Article 12
Modifications and Waivers

Subsequent modification of requirements and waivers of a mutually agreed service shall be made known to Standortverwaltung Schwanewede by the responsible US agency at the earliest possible date. To become effective, such modifications and waivers require written confirmation by Standortverwaltung Schwanewede.

Article 13
Emergency Measures

In case an unforeseen and imperative requirement has to be met to ward off an impending danger or prevent considerable damage, Standortverwaltung Schwanewede will initiate without delay the necessary measures to be carried out in accordance with the RBBau and other German regulations applicable to the operation of the cantonment. The responsible US agency will be furnished immediately with the relevant information, if feasible prior to the execution of such measures. The US agency will then issue an ordering document.

Article 14
Inspection and Acceptance of Services and Supplies
Incidental Thereto

1. The Bundeswehr Administration is responsible for conducting adequate inspections of all services rendered, and supplies incidental thereto furnished, under this agreement.
2. The Bundeswehr Administration will either indicate on, or attach to, the invoices submitted certification that the inspection required under paragraph 1 of this Article has been performed, and that the services and/or supplies have been furnished in accordance with the ordering document.

3. USAREUR will be entitled to order verification of the conformity of the services with the ordering document. The representative, charged with the verification, will certify, in writing, that the services have been properly furnished. Standortverwaltung Schwanewede will order the correction of defects and deficiencies noted.
4. The form and contents of the inspection verification document, referred to in paragraphs 2 and 3 of this Article will be formulated jointly by the responsible US and German agencies.

Article 15

Acceptance of Construction Measures

Construction measures concerning alterations, additions and new constructions will be inspected by the Construction Administration and subsequently turned over to Standortverwaltung Schwanewede in accordance with the provisions of RBBau. Turn-over to Norddeutschland Support Group will be effected by Standortverwaltung Schwanewede. These provisions will apply analogously to facilities maintenance measures if so required by Norddeutschland Support Group in individual cases.

Standortverwaltung Schwanewede will order the correction of defects and deficiencies noted.

Article 16

Personnel

1. The administration of the Garlstadt cantonment area and the support of the US units stationed there will be performed by officials and employees of the Bundeswehr Administration; work assignments will be made by Standortverwaltung Schwanewede. The employer's guidance and supervision will be exercised exclusively by the Bundeswehr Administration.
2. A table of organization will be prepared by the Wehrbereichsverwaltung II in accordance with the criteria applicable to the Bundeswehr Administration. The responsible US agency will be afforded the opportunity to comment on the table of organization. This will apply also to changes contemplated in the future. Irrespective of that, the US side may recommend changes.
3. Bundeswehr Administration personnel and civilian contractor personnel will comply with military security regulations issued for the Garlstadt cantonment area by the US cantonment area commander.
4. The Bundeswehr Administration will examine whether, and how many of, US Forces employed civilian labor whose services are no longer required for the operation of the Garlstadt cantonment area because their tasks were assumed by officials and employees of the Bundeswehr Administration, may be re-employed on a priority basis.

Article 17
Plan of Expenditures

1. The Bundeswehr Administration will present not later than 1 February of each calendar year to the responsible US agency a budget estimate for the coming US fiscal year calculated on the costs to be charged for services pursuant to Articles 7 through 9 as well as for any emergency measures covered by Article 13. The individual service titles must be identified.
2. Budget estimates for facilities maintenance, pursuant to Article 8, and for alterations, additions and new constructions pursuant to Article 9, will be prepared in accordance with the provisions of RBBau.
3. The responsible US agency and the Bundeswehr Administration will develop jointly the form of the budget estimate.
4. On the basis of the budget estimate, the parties to this agreement will jointly develop a plan of expenditures. The services identified in the plan of expenditures will be deemed mutually agreed upon signature of the plan of expenditures by the duly authorized representatives of both parties to the agreement and simultaneous presentation of an overall ordering document. The plan of expenditures and the ordering document will include an adequate amount earmarked for possible emergency measures pursuant to Article 13.
5. Funding ceilings, set forth in the plan of expenditures, may be exceeded only with the prior written approval of the responsible US agency.

Article 18
Reimbursement of Costs

1. The United States of America will reimburse the Federal Minister of Defense of the Federal Republic of Germany the total cost incurred for both the administration of the Garlstedt cantonment area and the support of the US units stationed there in accordance with this agreement and the issued ordering documents. The Federal Minister of Defense of the Federal Republic of Germany will bill the cost price only, plus an administrative charge; he will not realize any profit.
2. The United States of America will reimburse the Federal Minister of Defense of the Federal Republic of Germany the personnel costs arising on account of agreement termination by USAREUR, or on account of a USAREUR requested amendment to the agreement, until affected Bundeswehr Administration officials and employees are dismissed, transferred, or assigned to another local German agency.

Article 19
Computation of Reimbursable Costs

1. Costs of materials consumed or used by the Bundeswehr Administration in connection with the accepted tasks, will be determined in accordance with the laws and regulations in force for the Bundeswehr at the time of performance. The US Forces will not pay taxes and fees, from which they are exempt based on International agreements.
2. Costs of services rendered will be determined by the laws and regulations applicable to officials and employees of the Bundeswehr Administration.
3. Appropriate amounts to be paid for services - including construction - procured or furnished by the Bundeswehr Administration through a third party will be charged to the US Forces. This applies also to fees to be paid to the Construction Administration for planning and construction supervision, as well as to any other extra construction costs. The Dollar-Bau-Kontrakt and any relevant follow-up agreements will apply. The Bundeswehr Administration will, to the extent possible, make use of all privileges to which the Bundeswehr is entitled.
4. An administrative charge of 3 percent will be levied on all costs unless the contrary is laid down in existing German/American agreements or until deviating arrangements are made in the future on a reciprocal basis.

Article 20
Rendering of Accounts and Final Account

1. Standortverwaltung Schwanewede will forward to Norddeutschland Support Group invoices in quadruplicate - broken down by service titles - on costs incurred by the Bundeswehr Administration in the performance of the administration of the Carlstedt cantonment area and of the support provided to US units stationed there. Fixed costs, especially personnel costs, will be billed each month on the first workday. In each instance, the responsible US agency will be advised of these costs in writing one month in advance. Norddeutschland Support Group and the Bundeswehr Administration will develop jointly form and contents of this document.
2. A final accounting will be effected at the end of each US fiscal year (1 October through 30 September). Any outstanding amount, identified therein, will be remitted by the responsible US Finance and Accounting Office within one month. Overpayments will be refunded or - upon prior coordination - applied to the next payment.

Article 21
Reimbursement Procedure

1. The responsible US Finance and Accounting Office will remit the amounts identified in the invoices without delay.

2. The reimbursable amounts for facilities maintenance, pursuant to Article 8, will be called in by Standortverwaltung Schwanewede according to a schedule which has been coordinated with Norddeutschland Support Group.
3. Reimbursement for alterations, additions and new constructions, pursuant to Article 9, will be made in accordance with provisions of current agreements between the US Forces and the Federal Republic of Germany for the reimbursement for construction. The construction measures will be initiated only if and when the responsible US agency has made available to Standortverwaltung Schwanewede the funds required for the measures in question.
4. The appropriate US Finance and Accounting Office will be responsible to the Bundeswehr Administration for timely payments and for the final accounting of all payments.
5. All payments must be made in Deutsche Mark.
6. Any other technical details, concerning the reimbursement of costs and the rendering of accounts, will be settled between the responsible US agency and Standortverwaltung Schwanewede.

Article 22

Audits

1. Audits will be performed by agencies having auditing jurisdiction over the Bundeswehr Administration.
2. Audit reports and other remarks made by German agencies on costs to be reimbursed by the US Forces under the terms of this agreement, will be made known to the responsible US agency.

Article 23

Disputes and Annual Conference

1. Questions concerning the interpretation and application of this agreement, to include the settlement of budget-related questions which cannot be resolved at the local level will be raised to the next higher level in the respective chain of command for review and decision.
2. Apart from that, all arising questions and problems will be discussed and settled at a joint meeting to be convened at least once a year.

Article 24

Ownership and Inventory Lists

1. The initial issue of the maintenance and service equipment, required for the operation of the accommodation and the physical safety of the

cantonment area, will be procured and made available by the Bundeswehr Administration. This includes:

- Repair shop equipment.
- Tools.
- Facilities engineering equipment.
- Equipment for road and winter service.
- Fire protection equipment.
- Equipment required for the maintenance and cultivation of landscaped areas.
- Furniture required for Standortverwaltung Schwanewede administrative area
- 1 VW type Kombi (8 seats) and 1 VW passenger car.

Type, quantity and condition of such maintenance and service equipment and vehicles owned by the Federal Republic of Germany, will be laid down in a list to be attached as Appendix C which is to be compiled by the date of the consignment of the Garlstedt cantonment area, at the very latest until the initial issue has been provided. This list will be constantly actualized.

The US Forces will be responsible for furnishing the remaining equipment required for the utilization of the Garlstedt cantonment area.

2. The replacement of the maintenance and service equipment and vehicles, listed in paragraph 1 of this Article and procured by the Bundeswehr Administration, which is required to perform the accepted tasks will be procured - upon German request - by the Bundeswehr Administration against reimbursement upon prior US approval. These replacements are to be marked: "US financed".
3. Movable property, with the exception of building appurtenances, procured by either the US Forces or the Bundeswehr Administration at the cost of the US Forces, will become the property of the United States of America.
4. Movable property procured with offset funds, will become the property of the Federal Republic of Germany. Such property will be listed in a separate document and will be used exclusively in performance of the tasks accepted by this agreement.
5. The Bundeswehr Administration, in cooperation with US agencies, will prepare property control records of US property in its possession.
6. Form and contents of property control records pursuant to paragraph 3 and of the listing pursuant to paragraph 4 of this Article will be jointly established by the responsible US agency and the Bundeswehr Administration.

Article 25
Access to Records

1. Upon prior coordination with the Bundeswehr Administration, USAREUR or its authorized representatives, as designated in writing, will have, at reasonable times, the right to examine books, records, invoices, and other documents at the depository. Upon request, the Bundeswehr Administration will make available the above-mentioned materials for review and reproduction. The described records shall be retained for a period of at least three years as of the end of the fiscal year to which the records refer.
2. After prior coordination, the Bundeswehr Administration will make available for review by USAREUR or its authorized representative, as designated in writing, real property files and any other records concerning the cantonment area. The relevant details will be agreed upon between the responsible US agency and the Bundeswehr Administration on a case-to-case basis.

Article 26
Liability

1. Warranty for the proper execution of the agreed support services, as well as liability for damage to and loss of US property, will be governed by German legal provisions unless otherwise provided in the following terms of this agreement.
2. The Federal Republic of Germany will be liable for damage to and loss of US property only if caused through gross negligence or wilful acts or omissions of an official or employee of the Bundeswehr Administration in the performance of tasks pursuant to this agreement.
3. The Federal Republic of Germany will be liable for damage arising from faulty support in dealing with other governmental agencies and civilian enterprises only if caused wilfully by an act or omission of an official or employee of the Bundeswehr Administration.
4. Otherwise, the terms of Article VIII of the Agreement between the Parties to the North Atlantic Treaty Regarding the Status of their Forces, dated 19 July 1951, and Article 41 of the Supplementary Agreement thereto, dated 3 August 1959, in respect of liability and the settlement of existing claims, will apply.

Article 27
Language

All official correspondence will be conducted in German.

Article 28

Support During Times of Crises and in a State of Defense

In times of crises and in a state of defense, the Bundeswehr Administration will continue to perform the accepted tasks within the scope of existing capabilities, and in consideration of Bundeswehr requirements on the basis of the respective German laws and provisions in force as well as to NATO agreements and German-American arrangements.

Article 29

Concluding Clauses

1. This agreement will enter into force on the date of signature.
2. This agreement including the documents annexed thereto, may be amended at any time by the parties upon mutual consent. Amendments must be made in writing.
3. Arrangements required to implement this agreement will be prepared by the authorized representatives of the parties to this agreement. They will be made in writing and annexed to this agreement. The arrangements must not be in conflict with the provisions of this agreement; in case of contradiction this agreement shall govern.
4. This agreement shall remain effective until 30 September 1979. Unless notice of termination is submitted the period of validity extends for one year at the time.
5. Part I or Part II of this agreement may be terminated by the agreement parties in writing individually or together, with the notice of termination becoming effective on 1 October. The period of notice is one year.
6. Upon termination or in the event of an amendment to the agreement pursuant to paragraph 2 of this Article, the terminating party, respectively the party requesting the amendment, will reimburse the other party costs of contracts concluded with third parties in the performance of this agreement, which, however, could not be liquidated until the effective date of agreement termination or amendment.
7. After agreement termination by USAREUR, or upon a USAREUR requested amendment to the agreement, the Bundeswehr Administration will take all necessary steps in order to use personnel employed for the performance of tasks accepted pursuant to this agreement elsewhere, or to terminate employment contracts on time, until agreement termination or amendment become effective.
8. Termination or agreement amendment costs as well as reimbursement thereof will be agreed upon separately by authorized representatives of the

agreement parties. The designated US agency shall be informed of the estimated ceiling in time prior to the beginning of that fiscal year in which these costs will arise.

9. Upon termination of this agreement, the Bundeswehr Administration will make available to USAREUR and, if required, prepare for shipment all US property in the possession of the Bundeswehr Administration. USAREUR will bear the cost and be responsible for shipment if and when carried through.

Done at Bonn

on 22 September 1978

in two originals in the English and German languages, both texts being equally authentic.

The Commander in Chief,
United States Army, Europe,
and Seventh Army

For the Federal Minister
of Defense of the
Federal Republic of Germany

APPENDIX B

Company Daily Activity Schedule

(Date)

Co _____ Bn _____

A. Total strength _____

E-5 & below _____ **

B. # E-5 & below who are:*

1. _____ Doing regular training

2. _____ On OJT assignment

3. _____ Pulling maintenance

4. _____ Doing regular job (e.g. clerk, switchboard operator,
driver, etc.)

5. _____ In schools (not on post)

6. _____ On leave

7. _____ On exercise

8. _____ Testing (SQT, etc.)

9. _____ Training holiday/day off

* If not full-time (entire day) please specify proportion of time being used.

10. Doing other things*

#

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

C. What extra non-training, non-job, activities is the unit performing today and how many people are involved for what period of time? These activities might include: details to Bn and their purpose, community related activities, area maintenance activities, guard duty, parades, construction jobs, extra driving responsibilities, etc.

<u>Job</u>	<u># of people</u>	<u>Amount of time per person</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

* E.g., guard duty, area beautification, special details, AWOL, sick call.

- D. Estimate proportion of E-5s and below who are performing "regular" duties and proportion on "extra" (outside) duties.* ("Regular" equal training, OJT, maintenance, regular job, etc. "Extra" equals area maintenance, guard, other distractors - either imposed from above or internally, etc.).

proportion "regular" _____

proportion "extra" _____

proportion "regular & extra" _____

- E. Copy of training schedule for that day.

* In making these estimates there should be no attempt to make the unit "look good" in how they are utilizing their time for a particular day. Days will be balanced across all units in the study. Providing a misleading estimate of time utilization will only make the unit look like they don't know what's going on when we compare how time is actually spent.

APPENDIX C

DATA REQUIRED BY THE PRIVACY ACT OF 1974
(10 USC 4503)

TITLE OF FORM
TIME DIARY

PRESCRIBING DIRECTIVE
AR 70-1

1. AUTHORITY

10 USC Sec 4503

2. PRINCIPAL PURPOSE(S)

The data collected with the attached form are to be used for research purposes only.

3. ROUTINE USES

This is an experimental personnel data collection form developed by the U.S. Army Research Institute for the Behavioral and Social Sciences pursuant to its research mission as prescribed in AR 70-1. When identifiers (name or Social Security Number) are requested they are to be used for administrative and statistical control purposes only. Full confidentiality of the responses will be maintained in the processing of these data.

4. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION

Your participation in this research is strictly voluntary. Individuals are encouraged to provide complete and accurate information in the interests of the research, but there will be no effect on individuals for not providing all or any part of the information. This notice may be detached from the rest of the form and retained by the individual if so desired.

FORM

Privacy Act Statement - 28 Sep 75

DA Form 4368-R, 1 May 75

Time Diary Instructions

As part of a study on how Army people spend time, we would like you to fill out the attached questionnaire on what you do in a typical day. The questionnaire is in the form of a diary which you will fill out for the next 24-hour period, or until tomorrow afternoon at this time. In this diary we would like you to describe all of the duty and off-duty activities you do during the day and at night. The description should follow the format of the attached example and it should be as detailed as possible within the limitations of the form.

You are to describe primary and secondary activities. Note that secondary activities (e.g., talking with friends) include those things you do while completing a main activity (e.g., eating lunch). Include all activities that take 15 minutes or longer.

For each primary activity, you are also to describe the exact time of those activities, where they were done and with whom they were done. Your descriptions should be as short as possible without leaving out essential information. The terms should be as accurate as you can make them. If you don't have a watch or access to some time instrument, you can estimate, but remember that the most important aspect is how much time you spent doing the activity rather than exactly when. Your time sheets should roughly follow the time line on the left side of the form.

Remember that all of your answers are completely confidential. Nobody in your unit will ever see your responses and, once you turn in your sheet it will not be possible to identify who you are.

You should fill out the diary as often as you can but completing the diary should not interfere with your regular duties or activities. You might use some time at lunch, dinner, and before bed to fill in activities, or more often if you are doing a lot of different things.

Before you start, are there any questions? OK. First you should answer the questions under the Additional Information heading. Then you should fill in what you have been doing since 7 a.m. When you have finished that you can go on about your normal business. You should report back here at this same time tomorrow with your diaries completely filled out.

Time - Diary

With whom

Were you doing
Anything else?

[illegible]

SAMPLE

Time What did you do?
(Please Print)

time time
Started Ended

Roommate/Wife/Husband
Member(s) of my sqd/tn
Member(s) of my plt/sect
Member(s) of my Bn
Not my Bn, but Army
Not my Bn, Civilian

Were you doing
Anything else?

1100									TALKED TO MEMBER OF MY SQUAD FOR
1130	RETURNED TO CO. AREA	1135	1150			X			45 MINUTES WAITING FOR RETURN TRANSPORT.
1200	WENT TO ROOM THEN LUNCH	1150	1245			X			
1230	REPORTED TO ARMS ROOM TO PICK UP AND CLEAN RIFLE	1250	1330						SHOT 2 GAMES OF Pool in the day room
1300						X			
1330	HAD COMPANY FORMATION FOR ANNOUNCEMENTS ON UPCOMING AGI	1330	1345			X			
1400									
1430	WAITED FOR TIME TO REPORT TO FIRST AID CLASS	1345	1415			X			
1500	REPORTED TO FIRST AID CLASS	1415	1500			X			
1530	REPORTED TO FIRST SET FOR SPECIAL DETAIL - HELP MAIL CLERK PICK UP MAIL	1505	1630			X			STOPPED AT PX TO BUY SOME SOCKS LOOK AROUND
1600									
1630	WENT TO MY ROOM TO								

Additional Information

1. Do you live ☐ In the Barracks?
or ☐ Military Housing Area
or ☐ German Housing
2. What is your marital status?
☐ Not Married
☐ Married but Wife/Husband Not Here in Germany With Me
☐ Married and Wife/Husband is Accompanying Me Here in Germany
3. What is your pay grade?
☐ E-1 ☐ E-4
☐ E-2 ☐ E-5
☐ E-3 ☐ E-6 or above
4. What is your sex? ☐ Male
☐ Female
5. What is your race or ethnic background?
☐ Black, Afro American
☐ Hispanic, Spanish American
☐ Indian, Native American
☐ Oriental, Asian American
☐ White, Caucasian
6. What is your PMOS? _____
7. What is your Duty MOS? _____ or ☐ Same as in Question 6
8. What is your job? _____ (like cook, clerk, tank driver, rifleman, etc.)
9. What is your unit?
Battalion _____
Company _____
Platoon _____
Squad _____

With Whom

Roommate/Wife/Husband
Member(s) of my Sqd/Tm
Member(s) of my Plt/Sect
Member(s) of my Bn
Not my Bn, but Army
Not my Bn, CIVILIAN
Were
Anything

With Whom

Time Diary

With Whom

Roommate/Wife/Husband
Member(s) of my Sqd/Tm
Member(s) of my Plt/sect
Member(s) of my Bn
Not my Bn, but Army
Not my Bn, Civilian
Were Anyth

Were you doing
Anything else?

[illegible]

Time Diary

With Whom

Member(s) of my sqd/Tm
 Member(s) of my plt/sect
 Member(s) of my company
 Not my Bn, but Army
 Not my Bn, civilian

Were you doing
 Anything else?

Where

Time
 Ended

Time
 Started

What did you do?
 (Please Print)

Time

1100

1130

1200

1230

1300

1330

1400

1430

1500

1530

1600

APPENDIX D

CODING CATEGORIES FOR
TIME DIARY*

0090	Regular training - MOS (individual)
0091	" " - general (CBR, First Aid, etc.)
0092	OJT
0093	Maintenance
0094	Regular job
0095	Exercise (military)
0096	School, military, off-post
0097	School, military, on-post
0098	Test (SQT, PT, etc.)
0099	Regular training - group (squad, plt, Bn, etc.)
0190	Normal occupational work at home or brought home
0270	Guard
0271	CQ, CQ runner, SSO, SDNCO
0272	Work to higher HQ (incl. driver)
0273	Short detail to higher HQ
0274	Detail within company
0275	Military formations (unit) & preparing for them
0276	Extra military functions (change of cmd., etc.)
0277	Special duty in support of nonmission activity
0278	Leadership functions outside normal job
0279	Work-related conversations/performance counseling
0280	Extra duty applied to military functions - clean wpns, etc.
0290	Overtime (specifically differentiated from normal work)

*The categories are based on those created for the original time diaries used by Robinson, John A. How Americans Used Time in 1965, Ann Arbor, Institute for Social Research, 1977. Additional categories were added to accomodate military activities and permit emphasis on work and training related functions.

0300	{	0300	Trips at work - walking			
		0310	"	"	- subway, trolley	
		0320	"	"	- bus	
		0330	"	"	- car, truck	
		0340	"	"	- motorcycle/moped	
		0350	"	"	- train	
		0360	"	"	- boat	
		0370	"	"	- other means	
		0390	"	"	- no answer	
0400	{	0400	Waiting at work - during normal work			
		0410	"	"	"	overtime
		0420	"	"	"	moonlighting
		0430	"	"	"	trip at work
		0440	"	"	"	meals at work
0450	{	0450	"	"		
		0460	"	"	- for personal care	
		0470	"	"		
		0480	"	"		
		0490	"	"	- during trip to or from work	
		0590	Work on second job, moonlighting			
		0591	Additional duty, not work related (e.g. mail clerk)			
		0690	Meals at workplace			
		0790	Non-working time before or after work hours			
		0890	Work related, not ascertained			

0900

- 0900 Trip time (incl. waiting) to or from work - walking
- 0910 " " " " " " - subway, trolley
- 0920 " " " " " " - bus
- 0930 " " " " " " - car, truck
- 0940 " " " " " " - motorcycle, mo-ped
- 0950 " " " " " " - train
- 0960 " " " " " " - boat
- 0970 " " " " " " - other means
- 0990 " " " " " " - NA
- 1090 Preparing & cooking food (household)
- 1190 Doing dishes, cleaning up after meals (household)
- 1280 Same as 1290 for GI party, required for inspection, etc.
- 1290 Indoor cleaning (sweeping, etc. - household)
- 1380 Same as 1390 for those living in barracks
- 1390 Outdoor cleaning (sidewalk, garbage - household)
- 1490 Laundry, ironing (household)
- 1590 Mending or upkeep of clothes, shoes (household)
- 1680 Same as 1690 for those living in barracks
- 1690 Other repairs & home operations (snow removal, etc. - household)
- 1780 Same as 1790 for those living in barracks
- 1790 Gardening, animal care (household)
- 1890 Upkeep of heat & water supplies (household)
- 1980 "Extra duty" activities of clean-up, fix-up, etc.
- 1981 Attend briefing on time diary, fill out diary
- 1990 Other (household bills, paperwork, etc. - household)

	2090	All child care including meals, dressing, supervision, etc.				
	2290	Helping with or supervising schoolwork				
2300	2300	Reading or talking to children under 19 - scientific & tech.				
	2310	"	"	"	"	" - political
	2320	"	"	"	"	" - popular & folk
	2330	"	"	"	"	" - art, philosophy, etc.
	2340	"	"	"	"	" - novels
	2350	"	"	"	"	" - poetry, plays
	2360	"	"	"	"	" - comics, pictorial
	2370	"	"	"	"	" - sports
	2380	"	"	"	"	" - fashion & advertising
	2390	"	"	"	"	" - NA on source of reading
	2490	Games, walks or manual instruction (with children)				
	2690	Medical care (with children)				
	2790	Other child care (babysitting for someone else, etc.)				
	2890					
2900	2900	Trips related to child care (incl. waiting) - walking				
	2910	"	"	"	"	" - subway, trolley
	2920	"	"	"	"	" - bus
	2930	"	"	"	"	" - car, truck
	2940	"	"	"	"	" - motorcycle/moped
	2950	"	"	"	"	" - train
	2960	"	"	"	"	" - boat
	2970	"	"	"	"	" - other
	2990	"	"	"	"	" - NA

	3000	Shopping - everyday goods (food, clothes) - open public market
3000	3010	" " " " " - small grocery
	3020	" " " " " - small store
	3030	" " " " " - dept. store (PX)
3030	3040	" " " " " - supermarket (commissary)
	3050	" " " " " - specialized (audio/ photo, auto, etc.)
3000	3060	" " " " " - other
	3070	" " " " " - NA
	3100	Shopping - cars, appliances, hardware - open public market
3100	3110	" " " " " - small grocery
	3120	" " " " " - small store
	3130	" " " " " - dept. store (PX)
3130	3140	" " " " " - supermarket (commissary)
	3150	" " " " " - specialized shop
3100	3160	" " " " " - other
	3170	" " " " " - NA
	3290	Personal care outside home (barber, masseur, etc.)
	3390	Medical & dental outside home
	3391	Sick call (on-post)
	3392	Medical appointments (off-post)
	3400	Govt. services (post office, civic fees, housing, etc.) - open public market
3400	3410	" " " " " " " - small grocery
	3420	" " " " " " " - small store
	3430	" " " " " " " - dept. store (PX)
	3440	" " " " " " " - supermarket (comm.)
	3450	" " " " " " " - specialized shop

3400	{	3460	Govt. services (post office, civic fees, housing, etc.) - other					
		3470	"	"	"	"	"	other - NA
3500	{	3500	Repair & cleaning services (car, laundry, appliances) - open market					
		3510	"	"	"	"	"	- small groc
		3520	"	"	"	"	"	- small stor
		3530	"	"	"	"	"	- dept. stor (PX)
		3540	"	"	"	"	"	- supermarke (comm)
3530	{	3550	"	"	"	"	"	- specialize shop
		3560	"	"	"	"	"	- other
3500	{	3570	"	"	"	"	"	- NA
		3600	Waiting while purchasing - food					
3600	{	3610	"	"	"			- other perishables
		3620	"	"	"			- durables
		3630	"	"	"			- personal care services
		3640	"	"	"			- medical care services
		3650	"	"	"			- government services
		3660	"	"	"			- other private services
		3670	"	"	"			- meals in restaurants
		3680	"	"	"			- during trips to & from shopping
		3690	"	"	"			- NA
		3700	Other & professional (caterer, lawyer) - open public market					
3700	{	3710	"	"	"	"		- small grocery
		3720	"	"	"	"		- small store

3730	{	3730	Other & professional (caterer, lawyer)	- dept. store (PX)			
		3740	"	"	"	"	- supermarket (comm.)
		3750	"	"	"	"	- specialized shop
3700	—	3760	"	"	"	"	- other
		3770	"	"	"	"	- NA

3900	{	3900	Trips (incl. waiting time) for shopping				- walking	
		3910	"	"	"	"	"	- subway, trolley
		3920	"	"	"	"	"	- bus
		3930	"	"	"	"	"	- car, truck
		3940	"	"	"	"	"	- motorcycle, moped
		3950	"	"	"	"	"	- train
		3960	"	"	"	"	"	- boat
		3970	"	"	"	"	"	- other
		3990	"	"	"	"	"	- NA

4090 Personal washing & dressing

4190 Personal medical care at home

4290 Care/help given to other adults in household/friends

4390 Meals & snacks at home or mess hall

4490 Eating out (restaurant, snack bar)

4590 Essential sleep (usually at night)

4690 Incidental sleep & naps

4790 Resting

4890 All other private, nonascertained (usually home) activities

3900	{	4900	Trips (incl. waiting) related to private needs				- walking		
		4910	"	"	"	"	"	"	- subway, trolley
		4920	"	"	"	"	"	"	- bus
		4930	"	"	"	"	"	"	- car, truck

4900

4940 Trips (incl. waiting) related to private needs - motorcycle, moped
 4950 " " " " " " - train
 4960 " " " " " " - boat
 4970 " " " " " " - other
 4990 " " " " " " - NA

5090 Attending classes, full time
 5091 Attending college classes, full time
 5190 Attending classes, less than full time
 5191 Attending college classes, less than full time
 5290 Attending special lectures & talks, given occasionally
 5390 Programs of political or union training courses

5400

5400 Homework/research - scientific & technical
 5410 " " - political
 5420 " " - popular & folk (maps)
 5430 " " - art, philosophy, etc.
 5440 " " - novels
 5450 " " - poetry/plays
 5460 " " - comics, pictorial
 5470 " " - sports
 5480 " " - fashion & advertising
 5490 " " - NA

5500

5500 Reading for personal instruction - scientific & technical
 5510 " " " " - political
 5520 " " " " - popular & folk (maps)
 5530 " " " " - art, philosophy, etc.
 5540 " " " " - novels
 5550 " " " " - poetry/plays

5500

5560 Reading for personal instruction - comics, pictorial
 5570 " " " " - sports
 5580 " " " " - fashion, advertising
 5590 " " " " - NA

5690 Other, NA which of above

5790 GED, HS equivalent (home or away), BSEP

5791 English as a second language

5890 Headstart, Gateway, CIPCO, other German or orientation classes

5900

5900 Trips (incl. waiting) related to adult education - walking
 5910 " " " " " " - subway, trolle
 5920 " " " " " " - bus
 5930 " " " " " " - car, truck
 5940 " " " " " " - motorcycle, mo
 5950 " " " " " " - train
 5960 " " " " " " - boat
 5970 " " " " " " - other
 5990 " " " " " " - NA

6090 Activity as member of party, union, etc.

6190 Voluntary activity as elected official of an organization

6290 Other organizational participation

6390 Volunteer work for a civic purpose (i.e., Boy Scouts)

6490 Participating as member of religious club

6590 Religious practice, attending church services & ceremonies

6690 Participating in factory/workers' councils or committees

6790 Participating in other organizations (family, parent, etc.)

6890 Other, NA which of above

6900	6900	Trips (incl. waiting) for organizational activity - walking				
	6910	"	"	"	"	" - subway, trolley
	6920	"	"	"	"	" - bus
	6930	"	"	"	"	" - car, truck
	6940	"	"	"	"	" - motorcycle, mop
	6950	"	"	"	"	" - train
	6960	"	"	"	"	" - boat
	6970	"	"	"	"	" - other
	6990	"	"	"	"	" - NA
	7090	Sports events				
	7190	Circus, night club, fair, dancing, music hall				
7200	7200	Movie - opera				
	7210	"	- operetta			
	7220	"	- drama			
	7230	"	- adventure, war			
	7240	"	- musical			
	7250	"	- documentary			
	7260	"	- artistic			
	7270	"	- comedy			
	7280	"	- other			
	7290	"	- unknown			
7300	7300	Theatre, shows, concert - opera				
	7310	"	"	"	- operetta	
	7320	"	"	"	- drama	
	7330	"	"	"	- adventure, war	

7300	7340	Theatre, shows, concert - musicals				
	7350	"	"	"	"	- documentary
	7360	"	"	"	"	- artistic
	7370	"	"	"	"	- comedy
	7380	"	"	"	"	- other
	7390	"	"	"	"	- unknown
	7480	Sexual activities				
	7490	Museum, exhibition				
	7590	Entertaining or visiting friends				
	7690	Party or reception (with meals) given by or for R				
	7770	Drugs				
	7780	Drinking				
	7790	Bar, soda fountain, tea room				
	7890	Party or reception (without meals), other social, NA which of above				
7900	7900	Trips (incl. waiting) for social life - walking				
	7910	"	"	"	"	" - subway, trolley
	7920	"	"	"	"	" - bus
	7930	"	"	"	"	" - car, truck
	7940	"	"	"	"	" - motorcycle, moped
	7950	"	"	"	"	" - train
	7960	"	"	"	"	" - boat
	7970	"	"	"	"	" - other
	7990	"	"	"	"	" - NA
	8080	Daily PT				
	8090	Playing/practicing sports; other physical exercise				

8190 Hunting, fishing, camping, excursions, sightseeing
 8290 Taking a walk
 8390 Hobbies, collections
 8490 Women's hobbies - sewing, canning, dressmaking, etc.
 8590 Artistic work (sculpture, painting, writing)
 8690 Singing or playing a musical instrument
 8790 Games (cards, bingo, crosswords, pool, etc.)
 8890 Other active leisure, NA which of above
 8900 Trips (incl. waiting) for active leisure - walking

8900

8910 " " " " " - subway, trolley
 8920 " " " " " - bus
 8930 " " " " " - car, truck
 8940 " " " " " - motorcycle, moped
 8950 " " " " " - train
 8960 " " " " " - boat
 8970 " " " " " - other
 8990 " " " " " - NA

9000

9000 Listening to radio - classical
 9010 " " - popular, semi-classical, dance music
 9020 " " - jazz
 9030 " " - drama
 9040 " " - news
 9050 " " - education, culture
 9060 " " - sports
 9070 " " - children's
 9080 " " - advertising
 9090 " " - others, NA

9100	9100	Watching TV - concert
	9110	" " - other music
	9120	" " - movies
	9130	" " - drama, soap operas
	9140	" " - news
	9150	" " - education, culture
	9160	" " - sports
	9170	" " - advertising
	9180	" " - other
	9190	" " - unknown
	9290	Listening to radio
9300	9300	Reading books - scientific & technical
	9310	" " - political
	9320	" " - popular & folk (maps)
	9330	" " - art, philosophy, etc.
	9340	" " - novels
	9350	" " - plays/poetry
	9360	" " - comics, pictorial
	9370	" " - sports
	9380	" " - fashion & advertising
	9390	" " - NA
9400	9400	Reading magazines - scientific & technical
	9410	" " - political
	9420	" " - popular & folk
	9430	" " - art, philosophy, etc.

9400	9440	Reading magazines - novels				
	9450	"	"	- poetry/plays		
	9460	"	"	- comics, pictorial (Playboy)		
	9470	"	"	- sports		
	9480	"	"	- fashion & advertising		
	9490	"	"	- NA		
9500	9500	Reading newspapers - scientific & technical				
	9510	"	"	- political		
	9520	"	"	- popular & folk		
	9530	"	"	- art, philosophy, etc.		
	9540	"	"	- novels		
	9550	"	"	- poetry/plays		
	9560	"	"	- comics, pictorial		
	9570	"	"	- sports		
	9580	"	"	- fashion, advertising		
	9590	"	"	- NA		
	9690	Conversations, incl. phone conversations				
	9790	Writing & reading letters				
	9890	Relaxing, thinking, planning, doing nothing				
9900	9900	Trips (incl. waiting) for passive leisure - walking				
	9910	"	"	"	"	- subway, trolley
	9920	"	"	"	"	- bus
	9930	"	"	"	"	- car, truck
	9940	"	"	"	"	- motorcycle, moped
	9950	"	"	"	"	- train
	9960	"	"	"	"	- boat
	9970	"	"	"	"	- other
	9990	"	"	"	"	- NA

APPENDIX E

APPENDIX E

Table E-1. Time Utilization as Reported by Units:
Total Week Activities

	<u>STOV- Supported</u>	<u>Control</u>
Regular Training	.19	.29
OJT	.01	.02
Maintenance	.11	.08
Regular Job	.19	.06
Off-Post Schools	.02	.01
Leave	.07	.08
Exercise/Field	.04	.03
Testing	.02	.02
Day Off	.25	.26
CQ	.01	.02
Illness	-	.01
TDY	-	-
Personal Appointments	-	-
AWOL/Confinement	-	-
Guard Duty (interior)	.01	.02
On-Post Schools--German	.01	-
Extra Duty	-	-
Special Details	.05	.04
Administrative Leave	.01	.01
On-Post Schools--Basic Skills	-	.05
On-Post School--Military	.01	-
Guard Duty (perimeter)	-	-
Not Ascertained	-	-
	1.00	1.00
Number of Days	25621	9254

Table E-2. Time Utilization as Reported by Units:
Weekday and Weekend Activities

	<u>STOV-Supported</u>		<u>Control</u>	
	<u>Weekday</u>	<u>Weekend</u>	<u>Weekday</u>	<u>Weekend</u>
Regular Training	.26	-	.39	-
OJT	.01	-	.02	-
Maintenance	.15	.02	.10	-
Regular Job	.25	.01	.08	-
Off-Post Schools	.02	.01	.01	.01
Leave	.06	.07	.08	.09
Exercise/Field	.05	-	.04	-
Testing	.03	-	.02	-
Day Off	.05	.85	.08	.83
CQ	.01	.02	.02	.02
Illness	.01	-	.01	-
TDY	-	-	-	-
Personal Appointments	-	-	-	-
AWOL/Confinement	-	-	-	-
Guard Duty (interior)	.01	.02	.02	.02
On-Post Schools--German	.01	-	.01	-
Extra Duty	-	-	-	-
Special Details	.06	-	.04	.02
Administrative Leave	.01	-	.01	-
On-Post Schools--Basic Skills	-	-	.06	.01
On-Post School--Military	.01	-	.01	-
Guard Duty (perimeter)	-	-	-	-
Not Ascertained	-	-	-	-
	1.00	1.00	1.00	1.00
Number of Days	19074	6547	7008	2246

Table E-3. Time Utilization as Reported by Units:
Combat vs. Support Units (Weekdays)

	<u>STOV-Supported</u>		Control
	<u>Combat</u>	<u>Support</u>	(Combat)
Regular Training	.30	.13	.39
OJT	.01	.02	.02
Maintenance	.16	.09	.10
Regular Job	.16	.50	.08
Off-Post Schools	.02	.01	.01
Leave	.07	.06	.08
Exercise/Field	.05	.08	.04
Testing	.04	.01	.02
Day Off	.05	.03	.08
CQ	.01	.01	.02
Illness	.01	.01	.01
TDY	-	-	-
Personal Appointments	-	-	-
AWOL/Confinement	-	-	-
Guard Duty (interior)	.02	-	.02
On-Post Schools--German	.01	-	.01
Extra Duty	-	-	-
Special Details	.07	.04	.04
Administrative Leave	.01	.01	.01
On-Post Schools--Basic Skills	-	-	.06
On-Post School--Military	.01	-	.01
Guard Duty (perimeter)	-	-	-
Not Ascertained	-	-	-
	1.00	1.00	1.00
Number of Days	14326	4748	7008

APPENDIX F

APPENDIX F. Time Utilization as Reported on Diaries
for STOV-Supported Units

	<u>Weekday</u>	<u>Weekend</u>	<u>Total</u>
Regular Training	.16	-	.13
OJT	-	-	-
Maintenance	.14	-	.11
Regular Job	.20	-	.16
Off-Post Schools	.01	-	.01
Leave	.12	.14	.12
Exercise/Field	.09	.01	.07
Testing	.01	-	.01
Day Off	.07	.72	.20
CQ	.04	.07	.04
Illness	.04	-	.03
TDY	.04	.03	.03
Personal Appointments	.01	.01	.01
AWOL/Confinement	.02	.01	.02
Guard Duty (interior)	-	.01	.02
On-Post Schools--German	-	-	-
Extra Duty	-	-	-
Special Details	.03	-	.02
Administrative Leave	.01	-	.01
On-Post Schools--Basic Skills	-	-	-
On-Post School--Military	-	-	-
Guard Duty (perimeter)	-	-	-
Not Ascertained	-	-	-
	.99	1.00	.99
Number of Days	454	114	568

APPENDIX G

Appendix G: Comparison of Diary and Unit Reported
Time Utilization on Unit Activity
Categories (Weekdays) for STOV-Supported
Units

	<u>Combat Units</u>		<u>Support Units</u>	
	<u>Unit</u>	<u>Diary</u>	<u>Unit</u>	<u>Diary</u>
Regular Training	.30	.20	.13	.06
OJT	.01	.01	.02	-
Maintenance	.16	.16	.09	.08
Regular Job	.16	.16	.50	.33
Off-Post Schools	.02	-	.01	-
Leave	.07	.11	.06	.14
Exercise/Field	.05	.08	.08	.12
Testing	.04	.01	.01	.01
Day Off	.05	.07	.03	.08
CQ	.01	.03	.01	.04
Illness	.01	.03	.01	.06
TDY	-	.03	-	.04
Personal Appointments	-	.01	-	-
AWOL/Confinement	-	.03	-	-
Guard Duty (interior)	.02	.01	-	-
On-Post Schools--German	.01	.01	-	-
Extra Duty	-	-	-	-
Special Details	.07	.03	.04	.02
Administrative Leave	.01	.01	.01	.01
On-Post Schools--Basic Skills	-	-	-	-
On-Post School--Military	.01	-	-	-
Guard Duty (perimeter)	-	-	-	-
Not Ascertained	-	.01	-	-
	1.00	1.00	1.00	.99
Number of Days	14326	341	4748	113

APPENDIX H

APPENDIX H. Detailed Summary of Time Diaries for 2AD (Fwd)

	<u>Activity Category</u>	<u>Total</u>		<u>Proportion</u>	<u>Mean</u>
		<u>Hours</u>	<u>Mean</u>		
0090	Regular training--MOS (individual)	9235	2.17	30.89	
0091	Regular training--General (CBR, First Aid, etc.)	4500	1.06	15.05	
0092	QJT	2535	.60	8.48	
0093	Maintenance	18415	4.34	61.59	
0094	Regular Job	30500	7.18	102.01	
0095	Exercise (Military)	3870	.91	12.94	
0096	School, Military, Off-Post	-0-	-0-	-0-	
0097	School, Military, On-Post	125	.03	.42	
0098	Testing (SQT, PT, etc.)	2420	.57	8.09	
0099	Regular Training--Group (Squad, PLT, BN, etc.)	1605	.38	5.37	
0190	Normal Occupational Work at Home or Brought Home	-0-	-0-	-0-	
0270	Guard Duty	1855	.44	6.20	
0271	CQ, CQ Runner, SSO, SDNCO	11372	2.68	38.03	
0272	Detail to Higher HQ (including Driver)	-0-	-0-	-0-	
0273	Short Detail to Higher HQ	640	.15	2.14	
0274	Detail Within Company	1240	.29	4.15	
0275	Military Formations (Unit) plus preparation therefore	6162	1.45	20.61	
0276	Extra Military Functions (Change of Command, etc.)	1910	.45	6.39	
0277	Special Duty in Support of Non-Mission Activity	334	.08	1.12	
0278	Leadership Functions Outside Normal Job	2570	.61	8.60	
0279	Work-Related Conversations (Performance Counseling)	1444	.34	4.83	
0280	Extra Duty Applied to Military Functions (clean weapons, etc.)	215	.05	0.72	
0290	Overtime (as specifically differentiated from Normal Work)	10	-0-	.03	
0300	Trips at Work	10425	2.45	34.87	
0400	Waiting at Work (Equipment Breakdown, etc.)	895	.21	2.99	
0590	Work on Second Job (Moonlighting)	180	.04	.60	
0591	Additional Duty, Not Work Related (e.g., Mail Clerk)	865	.20	2.89	
0690	Meals at Workplace	660	.16	2.21	
0790	Non-Working Time before or after Work Hours	1440	.34	4.82	
0890	Work Related, Not Ascertained	775	.18	2.59	

APPENDIX H. (Continued)

<u>Activity Category</u>		<u>Total Hours</u>	<u>Proportion</u>	<u>Mean</u>
0900	Trip Time To or From Work (Including Waiting)	6659	1.57	22.27
1090	Preparing and/or Cooking Food (Household)	330	.08	1.10
1190	Doing Dishes, Cleaning Up After Meals (Household)	145	.03	.48
1280	Same as 1290 for GI Party, Required for Inspection	7265	1.71	24.30
1290	Indoor Cleaning (Sweeping, etc.--Household)	9871	2.32	33.01
1380	Same as 1390 for Those Living in Barracks	-0-	-0-	-0-
1390	Outdoor Cleaning (Sidewalk, Garbage--Household)	595	.14	1.99
1490	Laundry, Ironing (Household)	2400	.57	8.03
1590	Mending or Upkeep of Clothes, Shoes (Household)	3375	.79	11.29
1680	Same as 1690 for Those Living in Barracks	175	.04	.59
1690	Other Repairs and Home Operations (Snow Removal, etc.)	135	.03	.45
1780	Same as 1790 for Those Living in Barracks	-0-	-0-	-0-
1790	Gardening, Animal Care	-0-	-0-	-0-
1890	Upkeep of Heat and Water Supplies (Household)	-0-	-0-	-0-
1980	"Extra Duty" Activities of Clean-Up, Fix-Up, etc.	-0-	-0-	-0-
1981	Attend Briefing on Time Diary, Time Spent Filling Out Diary	12528	2.95	41.90
1990	Other (Household Bills, Paperwork, etc.)	-0-	-0-	-0-
2090	All Child Care, Including Meals, Dressing, Supervision, etc.	350	.08	1.17
2290	Helping With or Supervising Schoolwork	-0-	-0-	-0-
2300	Reading or Talking to Children Under 19	10	-0-	.03
2490	Games, Walks or Manual Instruction With Children	255	.06	.85
2690	Medical Care (With Children)	230	.05	.77
2790	Other Child Care (Babysitting for Someone Else, etc.)	-0-	-0-	-0-
2900	Trips Related to Child Care (Including Waiting)	90	.02	.30
3000	Shopping for Everyday Goods (Economy)	2360	.56	7.89
3030	Shopping for Everyday Goods (Military facilities)	1950	.46	6.52
3070	Shopping for Everyday Goods (Location not Ascertained)	360	.08	1.20
3100	Shopping for Durable Goods (Economy)	25	.01	.08
3130	Shopping for Durable Goods (Military Facilities)	110	.03	.37
3170	Shopping for Durable Goods (Location Not Ascertained)	-0-	-0-	-0-

APPENDIX H. (Continued)

<u>Activity Category</u>		<u>Total Hours</u>	<u>Proportion</u>	<u>Mean</u>
3290	Personal Care Outside the Home (Barber, etc.)	370	.09	1.24
3390	Medical and Dental Care Outside Home	50	.01	.17
3391	Sick Call (On-Post)	235	.05	.79
3392	Medical Appointments (Off-Post)	170	.04	.57
3400	Government Services (Post Office, Housing Office, etc.)	690	.16	2.31
3500	Repair and Cleaning Services (Laundry, etc.) (Economy)	-0-	-0-	-0-
3530	Repair and Cleaning Services (Laundry, etc.) (Military)	55	.01	.18
3570	Repair and Cleaning Services (Laundry, etc.) (Not Ascertained)	-0-	-0-	-0-
3600	Waiting While Purchasing Perishables, Durables, Services, etc.	150	.03	.50
3700	Purchasing Other and Professional Services (Lawyer, etc.) (Economy)	45	.01	.15
3730	Purchasing Other and Professional Services (Military)	-0-	-0-	-0-
3770	Purchasing Other and Professional Services (Not Ascertained)	-0-	-0-	-0-
3900	Trips (Including Waiting Time) for Shopping	1996	.47	6.68
4090	Personal Washing and Dressing	19744	4.65	66.03
4190	Personal Medical Care at Home	1100	.03	3.68
4290	Care/Help Given to Other Adults/Friends	450	.11	1.51
4390	Eating Meals & Snacks at Home or Mess Hall	18170	4.28	60.77
4490	Eating Out (Restaurant, Club, Snack Bar)	2920	.69	9.77
4590	Essential Sleep (Usually at Night)	107930	25.42	360.97
4690	Incidental Sleep and Naps	7905	1.86	26.44
4790	Resting	1465	.34	4.90
4890	All Other Private, Non-Ascertained (usually at home) Activities	3703	.87	12.38
4900	Trips (Including Waiting) Related to Private Needs	15363	3.62	51.38
5090	Attending Classes, Full Time	-0-	-0-	-0-
5091	Attending College Classes, Full Time	-0-	-0-	-0-
5190	Attending Classes, Less Than Full Time	525	.12	1.76
5191	Attending College Classes, Less Than Full Time	-0-	-0-	-0-
5290	Attending Special Lectures or Talks, Given Occasionally	-0-	-0-	-0-
5390	Programs Or Political or Union Training Courses	-0-	-0-	-0-
5400	Doing Homework/Research	1915	.45	6.40

APPENDIX H. (Continued)

<u>Activity Category</u>		<u>Total Hours</u>	<u>Proportion</u>	<u>Mean</u>
5500	Reading for Personal Instruction (Scientific, Political Novels, etc.)	1530	.36	5.12
5690	Reading for Personal Instruction (Source Not Ascertained)	275	.06	.92
5790	GED, HS Equivalent (Home or Away), BSEP	750	.18	2.51
5791	English as a Second Language	-0-	-0-	-0-
5890	Headstart, Gateway, CIPCO, (German Orientation)	890	.21	2.98
5900	Trips (Including Waiting) Related to Adult Education	310	.07	1.04
6090	Activity as Member of a Party, Union, etc.	-0-	-0-	-0-
6190	Voluntary Activity as Elected Official of an Organization	-0-	-0-	-0-
6290	Other Organizational Participation	-0-	-0-	-0-
6390	Volunteer Work for a Civic Purpose (e.g., Boy Scouts)	50	.01	.17
6490	Participating as Member of Religious Club	120	.03	.40
6590	Religious Practice (Attending Services, Ceremonies)	-0-	-0-	-0-
6690	Participating in Factory/Workers' Councils	-0-	-0-	-0-
6790	Participating in Other Organizations (Family, Parent, etc.)	-0-	-0-	-0-
6890	Other Club Participation, Not Ascertained Which of the Above	135	.03	.45
6900	Trips (Including Waiting) for Organizational Activity	100	.02	.33
7090	Sports Events	750	.18	2.51
7190	Attending Circuses, Night Clubs, etc.	1760	.41	5.89
7200	Attending Movies	3715	.87	12.42
7300	Attending Theatre, Show or Concert	80	.02	.27
7480	Sexual Activities	725	.17	2.42
7490	Attending an Exhibition/Attending Museums	-0-	-0-	-0-
7590	Entertaining or Visiting Friends	4740	1.12	15.85
7690	Attending a Party or Reception Given by or for R	615	.14	2.06
7770	Using Drugs	765	.18	2.56
7780	Drinking Alcohol	2081	.49	6.96
7790	Going to a Bar, Soda Fountain	1895	.45	6.34
7890	Other Social Events, NA Which of the Above	45	.01	.15
7900	Trips (Including Waiting) for Social Life	2169	.51	7.25
8080	Daily PT	1770	.42	5.92

APPENDIX H. (Continued)

<u>Activity Category</u>		<u>Total Hours</u>	<u>Proportion</u>	<u>Mean</u>
8090	Playing/Practicing Sports; Other Exercise	4651	1.09	15.56
8190	Hunting, Fishing, Camping, Sightseeing	85	.02	.28
8290	Taking a Walk	885	.21	2.96
8390	Hobbies, Collections	-0-	-0-	-0-
8490	Women's Hobbies, Sewing, Canning, etc.	410	.10	1.37
8590	Artistic Work (Sculpture, Painting, etc.)	210	.05	.70
8690	Singing or Playing A Musical Instrument	440	.10	1.47
8790	Games (Cards, Pool, etc.)	3385	.80	11.32
8890	Other Active Leisure, NA Which of the Above	691	.16	2.31
8900	Trips (Including Waiting Time) Related to Active Leisure	1097	.26	3.67
9000	Listening to the Radio	1000	.23	3.34
9100	Watching TV	18408	4.33	61.57
9290	Listening to Records	4675	1.10	15.64
9300	Reading Books	2000	.47	6.69
9400	Reading Magazines	435	.10	1.45
9500	Reading Newspapers	55	.01	.18
9690	Conversations, Including Telephone Conversations	2575	.61	8.61
9790	Writing and/or Reading Letters	1590	.37	5.32
9890	Relaxing, Thinking, Planning, Doing Nothing	5130	1.21	17.16
9900	Trips (Including Waiting) Related to Passive Leisure	1293	.30	4.32
		424651	99.71%	